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Think

Version 598
August 03, 2022

Lenovo™

PSREF

Product Specifications Reference

ThinkPad Laptops

The ThinkPad logo, featuring the word "ThinkPad" in a white, sans-serif font. The dot above the "i" is a small red square.

Version 598
August 3, 2022

The Lenovo logo, consisting of the word "Lenovo" in white, sans-serif font, oriented vertically within a blue rectangular background.

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Summary of Changes

This section describes the technical changes made in this edition.

This edition might also include minor corrections and editorial changes which are not identified.

August 3, 2022 - Version 598

Additions in this update

► New product(s)

None

► Spec updated

ThinkPad L13 Gen 3 (Intel)
ThinkPad L13 Gen 3 (AMD)
ThinkPad L13 Yoga Gen 3 (AMD)
ThinkPad L13 Yoga Gen 3 (Intel)
ThinkPad E14 Gen 4 (Intel)
ThinkPad E15 Gen 4 (Intel)
ThinkPad L14 Gen 3 (AMD)
ThinkPad L14 Gen 3 (Intel)
ThinkPad L15 Gen 3 (AMD)
ThinkPad L15 Gen 3 (Intel)
ThinkPad P15v Gen 3 (Intel)
ThinkPad T14 Gen 3 (Intel)
ThinkPad T14s Gen 3 (AMD)
ThinkPad T14s Gen 3 (Intel)
ThinkPad T16 Gen 1 (Intel)
ThinkPad X1 Carbon Gen 10
ThinkPad X1 Extreme Gen 5
ThinkPad X1 Yoga Gen 7
ThinkPad X13 Gen 3 (AMD)
ThinkPad X13 Gen 3 (Intel)
ThinkPad X13 Yoga Gen 3
ThinkPad Z16 Gen 1

Withdrawals in this update

► Withdrawn product(s)

ThinkPad P1 Gen 3
ThinkPad P14s Gen 1 (AMD)
ThinkPad P14s Gen 1 (Intel)
ThinkPad P15 Gen 1
ThinkPad P15s Gen 1
ThinkPad P15v Gen 1
ThinkPad P17 Gen 1
ThinkPad T15g Gen 1

OVERVIEW



1. Power button	7. Pen tether hole
2. Headphone / microphone combo jack (3.5mm)	8. Power connector
3. USB 3.1 Gen 1	9. Ethernet (RJ-45)
4. USB-C 3.1 Gen 1	10. HDMI 1.4b
5. Kensington Security Slot	11. USB 3.1 Gen 1
6. Pen tether hole	12. MicroSD card reader

PERFORMANCE

Processor

Processor Family

Intel® Celeron® or Intel Pentium® Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron N4120	4	4	1.1GHz	2.6GHz	4MB	DDR4-2400	Intel UHD Graphics 600
Pentium Silver N5030	4	4	1.1GHz	3.1GHz	4MB	DDR4-2400	Intel UHD Graphics 605

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Pro in S mode
- Windows 10 Home 64
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
Intel UHD Graphics 600	Integrated	Shared	DirectX® 12
Intel UHD Graphics 605	Integrated	Shared	DirectX 12

Monitor Support

Monitor Support

Supports up to 2 independent displays (native display and 1 external monitor via HDMI® or USB-C®)

- HDMI supports up to 4096x2160@30Hz
- USB-C supports up to 3840x2160@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots

Memory Type

DDR4-2400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}

- One drive, up to 256GB M.2 2242 SSD
- 64GB eMMC on systemboard

- 128GB eMMC on systemboard

Storage Type**

Disk Type	Interface	RPM	Security
Flash Memory	eMMC	-	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-

- Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
 2. System has one eMMC on systemboard or one M.2 2242 SSD exclusively

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Single microphone

Camera

HD 720p, fixed focus

Battery

Battery

Integrated Li-Polymer 42Wh battery

Max Battery Life^[1]

MobileMark® 2014: 13.9 hr

- Notes:
1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^[1]

- 45W slim tip (2-pin) AC adapter, 100-240V, 50-60Hz
- 45W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W slim tip (2-pin) AC adapter, 100-240V, 50-60Hz
- 65W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

- Notes:
1. AC adapter offerings depend on the country.

DESIGN

Display

Display**^{[1][2]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
11.6"	HD (1366x768)	None	TN	250 nits	Anti-glare	16:9	400:1 or 500:1	45% NTSC	90°	-
11.6"	HD (1366x768)	Multi-touch	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-

Touchscreen^[3]

- Capacitive-type multi-touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
2. IPS display is not available in EMEA
3. NOT available in EMEA.

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

Non-backlight

Touchpad

Buttonless Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

300 x 210 x 21.9 mm (11.81 x 8.27 x 0.86 inches)

Weight

Starting at 1.36 kg (2.99 lbs)

Case Color

Black

Case Material

PC + ABS + GF (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111GUS, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**^{[1][2]}

- Realtek Wi-Fi® 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]**Standard Ports**

- 2x USB 3.1 Gen 1
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® 11e \(5th Gen\)](#)

SECURITY & PRIVACY**Security****Security Chip****

- Discrete TPM 2.0, TCG certified
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password

SERVICE**Warranty****Base Warranty**^[1]**

- 1-year depot service
- 3-year (1-yr battery) depot service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

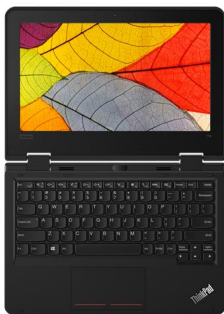
RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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OVERVIEW



1. Power button	8. Power connector
2. Headphone / microphone combo jack (3.5mm)	9. Ethernet (RJ-45)
3. USB 3.1 Gen 1	10. HDMI 1.4
4. USB-C 3.1 Gen 1	11. USB 3.1 Gen 1
5. Kensington Security Slot	12. MicroSD card reader
6. Pen tether hole	13. Pen slot
7. Pen tether hole	

PERFORMANCE

Processor

Processor Family

Intel® Celeron® or Intel Pentium® Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron N4120	4	4	1.1GHz	2.6GHz	4MB	DDR4-2400	Intel UHD Graphics 600
Pentium Silver N5030	4	4	1.1GHz	3.1GHz	4MB	DDR4-2400	Intel UHD Graphics 605

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Pro in S mode
- Windows 10 Home 64
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
Intel UHD Graphics 600	Integrated	Shared	DirectX® 12
Intel UHD Graphics 605	Integrated	Shared	DirectX 12

Monitor Support

Monitor Support

Supports up to 2 independent displays (native display and 1 external monitor via HDMI® or USB-C®)

- HDMI supports up to 4096x2160@30Hz
- USB-C supports up to 3840x2160@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots

Memory Type

DDR4-2400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}

- One drive, up to 256GB M.2 2242 SSD
- 64GB eMMC on systemboard
- 128GB eMMC on systemboard

Storage Type**

Disk Type	Interface	RPM	Security
Flash Memory	eMMC	-	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. System has one eMMC on systemboard or one M.2 2242 SSD exclusively

Removable Storage**Optical**

None

Card Reader

MicroSD card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Single microphone

Camera**

- Front HD 720p, fixed focus; rear 5.0-megapixel, auto focus
- Front HD 720p, fixed focus

Battery**Battery**

Integrated Li-Polymer 42Wh battery

Max Battery Life^[1]

MobileMark® 2014: 12 hr

Local video (1080p) playback@150nits: 12 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter**Power Adapter**^[1]**

- 45W slim tip (2-pin) AC adapter, 100-240V, 50-60Hz
- 45W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W slim tip (2-pin) AC adapter, 100-240V, 50-60Hz
- 65W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
11.6"	HD (1366x768)	Multi-touch	IPS	250 nits	Glossy	16:9	800:1	45% NTSC	170°	Corning® Gorilla® Glass

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Notes:

1. California Electronic Waste Recycling Fee
- In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
- For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Multi-mode

Multi-mode

Laptop, tent, stand, and tablet modes supported by 360° hinge

Input Device

Pen

- ThinkPad® Pen Pro, on-board garaged and rechargeable
- No pen (with a pen garage ready, pen sold separately)
- No support

Keyboard

6-row, multimedia Fn keys

Keyboard Backlight

Non-backlight

Touchpad

Buttonless Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

300 x 210 x 22.5 mm (11.81 x 8.27 x 0.89 inches)

Weight

Starting at 1.54 kg (3.4 lbs)

Case Color

Black

Case Material

PC + ABS + GF (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111GUS, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**^{[1][2]}

- Realtek Wi-Fi® 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

WWAN

No support

ThinkPad Yoga 11e (5th Gen)

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 2x USB 3.1 Gen 1
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 1x HDMI 1.4
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;

USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;

USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;

USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;

Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad Yoga® 11e \(5th Gen\)](#)

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 3-year (1-yr battery) depot service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

RoHS compliant

Other Certifications

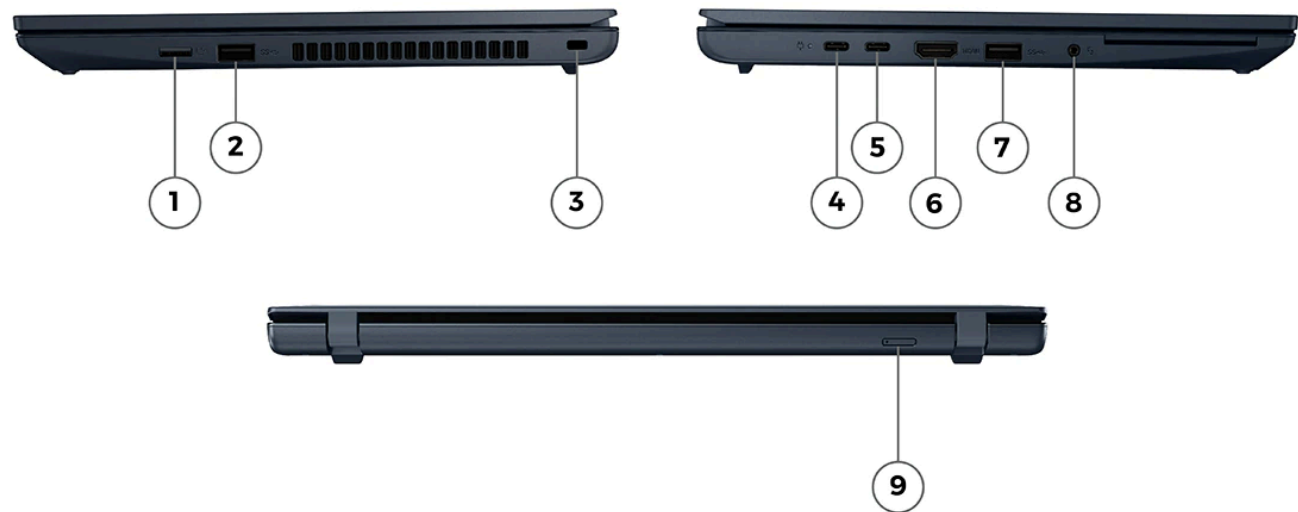
Mil-Spec Test

MIL-STD-810G military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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OVERVIEW



1. MicroSD card reader	6. HDMI
2. USB 3.2 Gen 2	7. USB 3.2 Gen 2
3. Kensington Nano Security Slot	8. Headphone / microphone combo jack (3.5mm)
4. Thunderbolt 4 / USB 4	9. Nano-SIM card slot *
5. Thunderbolt 4 / USB 4	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1215U	6 (2 P-core + 4 E-core)	8	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	10MB	LPDDR4x-4266	Intel UHD Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1245U	10 (2 P-core + 8 E-core)	12	P-core 1.6GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1265U	10 (2 P-core + 8 E-core)	12	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

Operating System

Google Chrome OS

Graphics

Graphics**

Graphics	Type	Memory	TGP	Key Features
Intel UHD Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX 12.1

Monitor Support

Monitor Support

- Model with non-vPro: supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB 4)
 - HDMI supports up to 3840x2160@60Hz
 - USB 4 supports up to 5120x3200@60Hz
- Model with Intel vPro: supports up to 4 independent displays (native display and 3 external monitors via HDMI and Thunderbolt™)
 - HDMI supports up to 3840x2160@60H
 - Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Memory Slots**

- Memory soldered to systemboard, no slots (4GB model)
- Memory soldered to systemboard, no slots, dual-channel (8GB or 16GB model)

Memory Type

LPDDR4x-4266

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}

- One drive, up to 256GB M.2 2242 SSD
- 64GB eMMC 5.1 on systemboard
- 128GB eMMC 5.1 on systemboard

Storage Slot

- eMMC on systemboard, no slots
- One M.2 2242 PCIe® Gen 4x4 slot, supports M.2 2242 SSD

Storage Type**

Disk Type	Interface	Offering	Security
Flash Memory	eMMC 5.1	64GB / 128GB	-
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. System has one eMMC on systemboard or one M.2 2242 SSD exclusively

Removable Storage

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC5682I codec

Speakers

Stereo speakers, 2W x2, optimized with Waves MaxxAudio®

Microphone

Dual array microphone

Camera

FHD 1080p, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)

Google Power Load Test: 11.4 hr @80nits

Alternate configuration 2

Google Power Load Test: 11.0 hr @80nits

Alternate configuration 3

Google Power Load Test: 10.8 hr @80nits

Notes:

1. Configuration 1 (max battery life): FHD (non-touch), Intel Pentium® 8505U, 4GB LPDDR4x, Google Chrome OS, 57Wh battery
Alternate configuration 2: FHD (non-touch), Intel i5-1235U, 8GB LPDDR4x, Google Chrome OS, 57Wh battery
Alternate configuration 3: FHD (touch), Intel i7-1265U, 16GB LPDDR4x, Google Chrome OS, 57Wh battery

All battery life claims are approximate maximum and based on results using Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.

Power Adapter

Power Adapter**^[1]

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°

Touchscreen

- OGS (One Glass Solution) multi-touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

Chrome keyboard, 6-row, spill-resistant

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad, 56 x 115 mm (2.24 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

325.4 x 217 x 19.83 mm (12.81 x 8.54 x 0.78 inches)

Weight

Starting at 1.56 kg (3.44 lbs)

Case Color

Abyss blue

Case Material

PC + ABS (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

No Ethernet

WLAN + Bluetooth^{[1][2]}

Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

WWAN

- Fibocom L850-GL, 4G LTE CAT9, M.2 card
- No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]

Standard Ports

- 2x USB 3.2 Gen 2
- 1x HDMI, up to 4K/60Hz
- 1x microSD card reader
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{***}

- 1x Nano-SIM card slot (WWAN support models)
- 2x Thunderbolt 4 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4) (vPro models)
- 2x USB 4 20Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4) (non-vPro models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® C14 Gen 1 Chromebook](#)

SECURITY & PRIVACY

Security

Security Chip

Google Security Chip H1

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

No support

Other Security

Camera privacy shutter

MANAGEABILITY**System Management****System Management**

- Intel vPro Enterprise
- Non-vPro

SERVICE**Warranty****Base Warranty**^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL**Operating Environment****Temperature^{[1][2]}**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS**Green Certifications****Green Certifications**

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications**Mil-Spec Test**

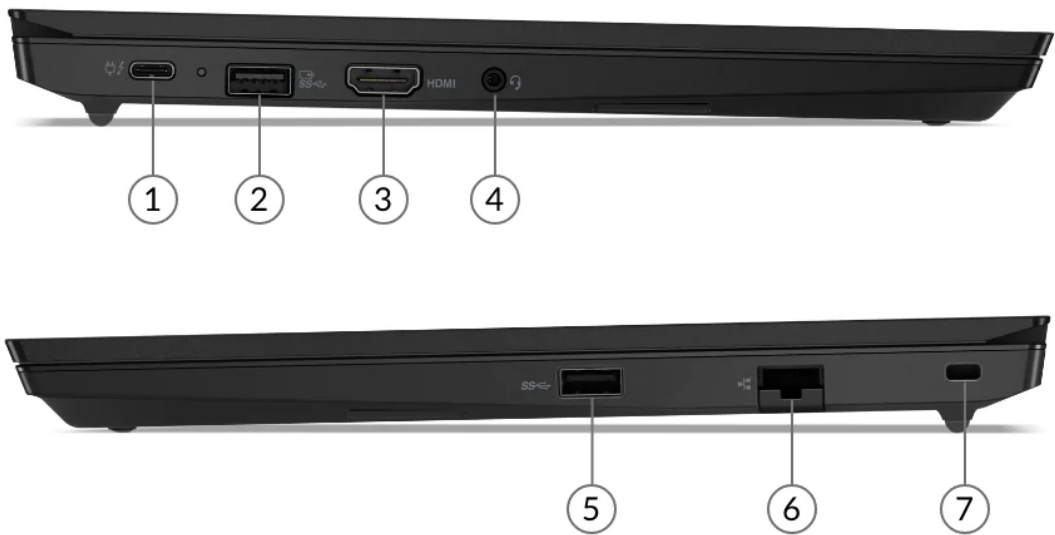
MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.

- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Thunderbolt 4	5. USB 2.0
2. USB 3.2 Gen 1 (Always On)	6. Ethernet (RJ-45)
3. HDMI 1.4b	7. Kensington Security Slot
4. Headphone / microphone combo jack (3.5mm)	

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	DDR4-3200	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12.1
NVIDIA® GeForce MX350	Discrete	2GB GDDR5	DirectX 12
NVIDIA GeForce MX450	Discrete	2GB GDDR5	DirectX 12

Notes:

1. The integrated graphics of i5 / i7 models is Intel Iris Xe Graphics but function as Intel UHD graphics due to single channel memory limitation

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 4096x2160@30Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 32GB DDR4-3200

Memory Slots

One DDR4 SO-DIMM slot

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

- Up to two drives, 2x M.2 SSD
- M.2 2242 SSD up to 512GB
 - M.2 2280 SSD up to 1TB

Storage Slot

- Two M.2 slots
- One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD
 - One M.2 2280 PCIe Gen 4x4 slot, supports M.2 2280 SSD

Storage Type^{***}

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

- Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™, audio by HARMAN

Microphone

Dual array microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life^[1]

MobileMark® 2014: 11.9 hr
MobileMark 2018: 8.7 hr

- Notes:
1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^{**[1][2]}

- 65W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

- No power adapter

Notes:

- AC adapter offerings depend on the country.
- No power adapter is for special bid only.

DESIGN

Display

Display**^{[1][2]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	TN	220 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- Displays with 300nits brightness (multi-touch and non-touch) are NOT available in EMEA

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad, 57 x 100 mm (2.24 x 3.94 inches)

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Aluminium (top), aluminium (bottom) models	324 x 220 x 17.9 mm (12.76 x 8.66 x 0.7 inches)
Aluminium (top), PC + ABS (bottom) models	324 x 220 x 18.9 mm (12.76 x 8.66 x 0.74 inches)
PC + ABS (top), PC + ABS (bottom) models	324 x 220 x 19.9 mm (12.76 x 8.66 x 0.78 inches)

Weight

Models	Weight
PC + ABS (Top), PC + ABS (Bottom) models	Starting at 1.69 kg (3.73 lbs)
Aluminium (top), PC + ABS (bottom) models	Starting at 1.59 kg (3.51 lbs)
Aluminium (top), aluminium (bottom) models	Starting at 1.64 kg (3.62 lbs)

Case Color**

- Black
- Mineral metallic

Case Material**

- Aluminium (top), aluminium (bottom)
- Aluminium (top), PC + ABS (bottom)
- PC + ABS (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111H-CG, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®^{[1][2]}**

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x HDMI 1.4b
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt.

For more compatible docking solutions, please visit [Docking for ThinkPad® E14 Gen 2 \(Intel\)](#)

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

SERVICE

Warranty

Base Warranty^[1]**

- 1-year mail-in service
- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo 15.6" laptop casual toplayer, polyester, grey
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

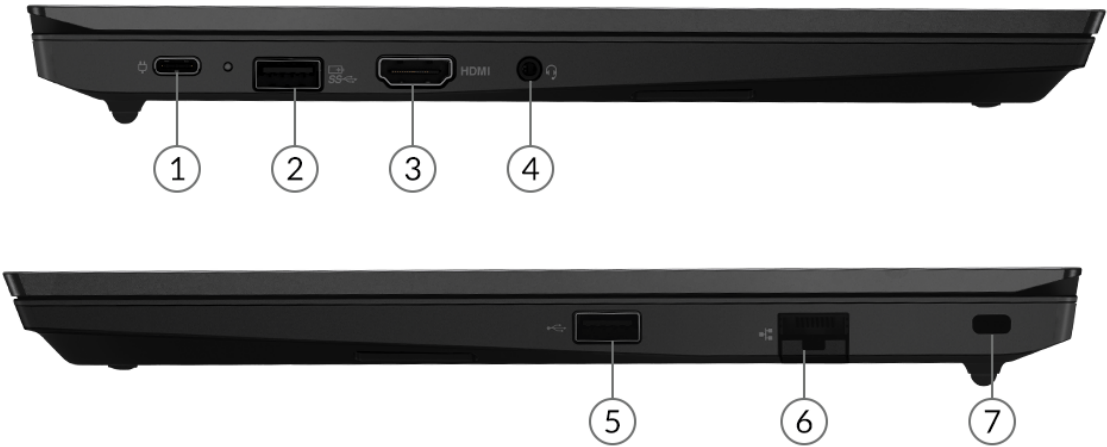
Other Certifications

TÜV Rheinland® Low Blue Light

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- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. USB-C 3.2 Gen 1	5. USB 2.0
2. USB 3.2 Gen 1 (Always On)	6. Ethernet (RJ-45)
3. HDMI 1.4b	7. Kensington Security Slot
4. Headphone / microphone combo jack (3.5mm)	

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 5300U	4	8	2.6GHz	3.8GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 5500U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 5600U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5700U	8	16	1.8GHz	4.3GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5800U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Notes:

1. Ryzen 5 5600U, Ryzen 5 PRO 5650U and Ryzen 7 5800U are NOT available in EMEA

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4K@30Hz
- USB-C supports up to 4K@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory[1][2]

- Up to 20GB (4GB soldered + 16GB SO-DIMM) DDR4-3200
- Up to 24GB (8GB soldered + 16GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type
DDR4-3200

- Notes:
- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
 - 2. 4GB soldered memory is NOT available in EMEA

Storage

- Storage Support^[1]
- Up to two drives, 2x M.2 SSD
- M.2 2242 SSD up to 512GB
 - M.2 2280 SSD up to 1TB

Storage Type^{***}

Disk Type	Interface	Offering
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	128GB / 256GB / 512GB
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	1TB

- Notes:
- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

- Optical
- None
- Card Reader
- No card reader

Multi-Media

- Audio Chip
- High Definition (HD) Audio, Realtek® ALC3287 codec
- Speakers
- Stereo speakers, 2W x2, Dolby® Audio™, audio by HARMAN
- Microphone
- Dual array microphone
- Camera^{**}
- HD 720p, with privacy shutter, fixed focus
 - IR & HD 720p hybrid, with privacy shutter, fixed focus

Battery

- Battery^{**}
- Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
 - Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Max Battery Life^[1]
- MobileMark® 2018: 12.8 hr (45Wh)
 - MobileMark 2018: 15.8 hr (57Wh)

- Notes:
- 1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- Power Adapter^{**[1][2]}

- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

- AC adapter offerings depend on the country.
- No power adapter is for special bid only.

DESIGN

Display

Display**^{[1][2]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	TN	250 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°	-

Touchscreen

Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- Display with FHD 100% sRGB is NOT available in EMEA

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad, 57 x 100 mm (2.24 x 3.94 inches)

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Aluminium (top), aluminium (bottom) models	324 x 220.7 x 17.9 mm (12.76 x 8.69 x 0.7 inches)
PC + ABS (top), PC + ABS (bottom) models	324 x 220.7 x 20.9 mm (12.76 x 8.69 x 0.82 inches)

Weight

Models	Weight
PC + ABS (Top), PC + ABS (Bottom) models	Starting at 1.69 kg (3.73 lbs)
Aluminium (top), aluminium (bottom) models	Starting at 1.64 kg (3.62 lbs)

Case Color**^[2]

- Black
- Mineral metallic

Case Material

**

- Aluminium (top), aluminium (bottom)
- PC + ABS (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Mineral metallic case is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111GUS, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth[®]**^{[1][2]}

- Wi-Fi[®] 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel[®] Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® E14 Gen 3 \(AMD\)](#)

SECURITY & PRIVACY

Security

Security Chip**

ThinkPad E14 Gen 3 (AMD)

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

SERVICE

Warranty

Base Warranty**^[1]

- 1-year mail-in service
- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3

- GREENGUARD®
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

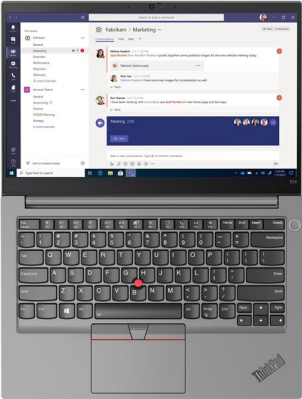
Other Certifications

TÜV Rheinland® Low Blue Light (Software Solution)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

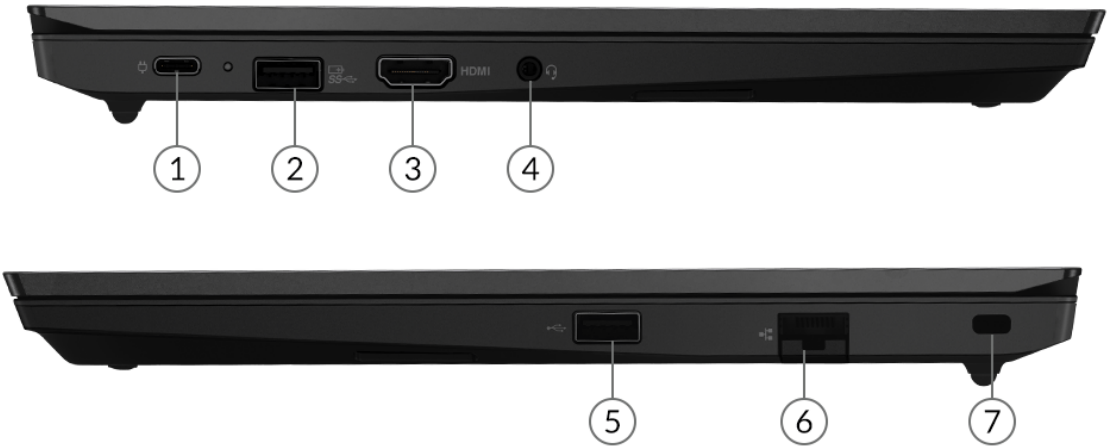


AMD



AMD

OVERVIEW



1. USB-C 3.2 Gen 1	5. USB 2.0
2. USB 3.2 Gen 1 (Always On)	6. Ethernet (RJ-45) *
3. HDMI 1.4b	7. Kensington Security Slot
4. Headphone / microphone combo jack (3.5mm)	

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 5425U	4	8	2.7GHz	4.1GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 5625U	6	12	2.3GHz	4.3GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5825U	8	16	2.0GHz	4.5GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- No operating system

Graphics

Graphics

Graphics	Type	Memory	TGP	Key Features
AMD Radeon Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and USB-C®)

- HDMI supports up to 3840x2160@30Hz
- USB-C supports up to 4096x2160@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 2x M.2 SSD

- M.2 2242 SSD up to 512GB
- M.2 2280 SSD up to 1TB

Storage Slot

- Two M.2 slots
- One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD
 - One M.2 2280 PCIe Gen 3x4 slot, supports M.2 2280 SSD

Storage Type**[2]

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	1TB	Opal2

- Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
 2. The SSD with PCI 4.0x4 is downgraded to closer to PCIe 3.0x4 due to the system slot limitation.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™, audio by HARMAN

Microphone

Dual array microphone, near-field

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus

Battery

Battery**

- Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Integrated Li-Polymer 57Wh battery

Max Battery Life[1]

- Model with 45Wh battery:
MobileMark® 2018: up to 9.2 hr
JEITA 2.0: up to 12.1 hr
- Model with 57Wh battery:
MobileMark 2018: up to 15.0 hr
JEITA 2.0: up to 21.0 hr

- Notes:
1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**[1]

- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle
14.0"	FHD (1920x1080)	None	TN	250 nits	Anti-glare	16:9	500:1	45% NTSC	90°
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°

Touchscreen

Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
2. Display with FHD 100% sRGB is NOT available in EMEA

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad, 57 x 100 mm (2.24 x 3.94 inches)

Mechanical[1]

Dimensions (WxDxH)

Models	Dimensions
Aluminium (top), aluminium (bottom) models	324 x 220.7 x 17.9 mm (12.76 x 8.69 x 0.7 inches)
Aluminium (top), PC + ABS (bottom) models	324 x 220.7 x 18.9 mm (12.76 x 8.69 x 0.74 inches)

Weight

Models	Weight
Aluminium (top), PC + ABS (bottom) models	Starting at 1.59 kg (3.51 lbs)
Aluminium (top), aluminium (bottom) models	Starting at 1.64 kg (3.62 lbs)

Case Color**[2]

- Black
- Mineral metallic

Case Material**

- Aluminium (top), aluminium (bottom)
- Aluminium (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Mineral metallic case is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Realtek RTL8111H-CG, 1x RJ-45, supports Wake-on-LAN
- No Ethernet

WLAN + Bluetooth®**^{[1][2]}

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- AMD RZ616, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- MediaTek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Realtek Wi-Fi 6E RTL8852CE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.

Ports^[1]

Standard Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

1x Ethernet (RJ-45)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® E14 Gen 4 \(AMD\)](#)

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

SERVICE

Warranty

Base Warranty^[1]**

- 1-year mail-in service
- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

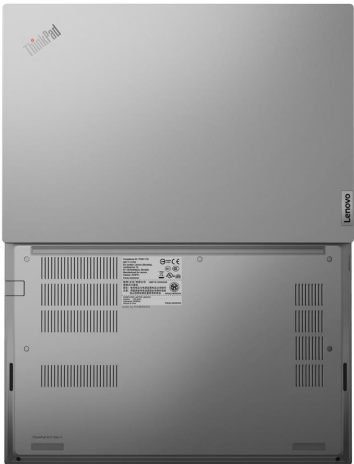
Other Certifications

TÜV Rheinland® Low Blue Light (Software Solution)

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AMD



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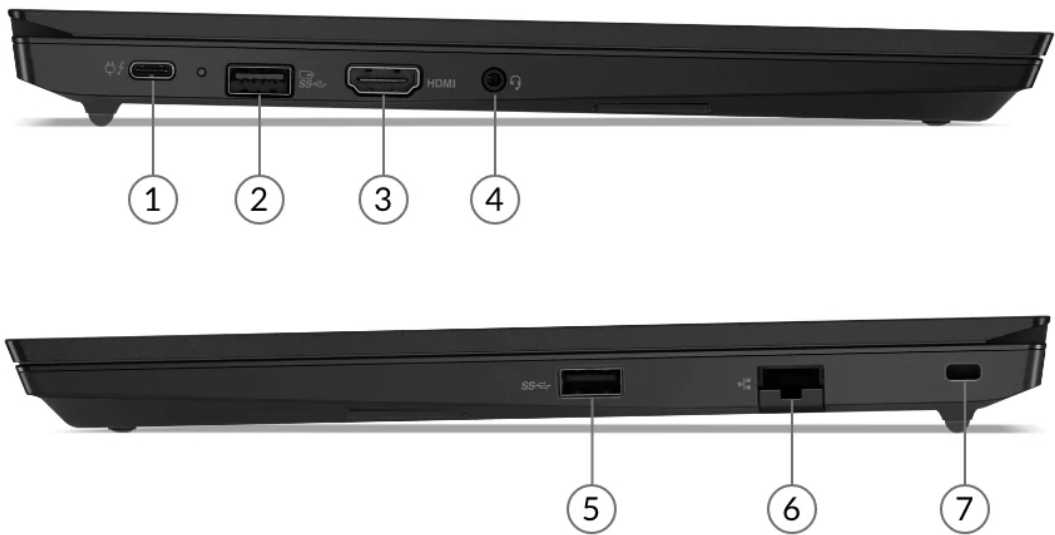


AMD



AMD

OVERVIEW



1. Thunderbolt 4	5. USB 2.0
2. USB 3.2 Gen 1 (Always On)	6. Ethernet (RJ-45) *
3. HDMI	7. Kensington Security Slot
4. Headphone / microphone combo jack (3.5mm)	

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor**^[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1215U	6 (2 P-core + 4 E-core)	8	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	10MB	DDR4-3200	Intel UHD Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	DDR4-3200	Intel Iris Xe Graphics

Notes:

1. i5-1240P and i7-1260P are NOT available in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics**^[1]

Graphics	Type	Memory	TGP	Key Features
Intel UHD Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX 12.1
NVIDIA® GeForce MX550	Discrete	2GB GDDR6	-	DirectX 12

Notes:

1. Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual-channel memory. On the system with Intel Core i5 or i7 processor and single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- Up to 32GB DDR4-3200

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots**

- One DDR4 SO-DIMM slot
- One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive offering, up to 1TB M.2 2242 SSD

Storage Slot

Two M.2 slots

- One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD
- One M.2 2242 PCIe Gen 4x4 slot, supports M.2 2242 SSD

Storage Type

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™, audio by HARMAN

Microphone

Dual array microphone, near-field

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus

Battery

Battery**

- Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Integrated Li-Polymer 57Wh battery

Max Battery Life^[1]

- Model with 45Wh battery:
MobileMark® 2018: up to 9.4 hr
JEITA 2.0: up to 16.1 hr
Local video (1080p) playback@150nits: up to 11.8 hr
- Model with 57Wh battery:
MobileMark 2018: up to 11.5 hr

MobileMark 25: up to 10.9 hr
JEITA 2.0: up to 20.6 hr
Local video (1080p) playback@150nits: up to 15.6 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- Power Adapter**[1]
- 65W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	TN	250 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-

- Touchscreen
- Capacitive-type on-cell multi-touch, supports 10-point touch
 - Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

2. Multi-touch panel is only for special bid in EMEA.

Input Device

- Keyboard
- 6-row, spill-resistant, multimedia Fn keys with Unified Communications controls
- Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad, 57 x 100 mm (2.24 x 3.94 inches)

Mechanical[1]

Dimensions (WxDxH)

Models	Dimensions
Aluminium (top), aluminium (bottom) models	324 x 220.7 x 17.9 mm (12.76 x 8.69 x 0.7 inches)

Aluminium (top), PC + ABS (bottom) models	324 x 220.7 x 18.9 mm (12.76 x 8.69 x 0.74 inches)
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Weight

Models	Weight
Aluminium (top), PC + ABS (bottom) models	Starting at 1.59 kg (3.51 lbs)
Aluminium (top), aluminium (bottom) models	Starting at 1.64 kg (3.62 lbs)

Case Color**[2]

- Black
- Mineral metallic

Case Material**

- Aluminium (top), aluminium (bottom)
- Aluminium (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Mineral metallic case is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V, 1x RJ-45, supports Wake-on-LAN
- No Ethernet

WLAN + Bluetooth®**[1][2]

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- AMD RZ616, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.

Ports^[1]

Standard Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

1x Ethernet (RJ-45)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt.

For more compatible docking solutions, please visit [Docking for ThinkPad® E14 Gen 4 \(Intel\)](#)

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

SERVICE

Warranty

Base Warranty**^[1]

- 1-year mail-in service
- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)

- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo 15.6" laptop casual toploader, polyester, grey
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

TÜV Rheinland® Low Blue Light (Software Solution)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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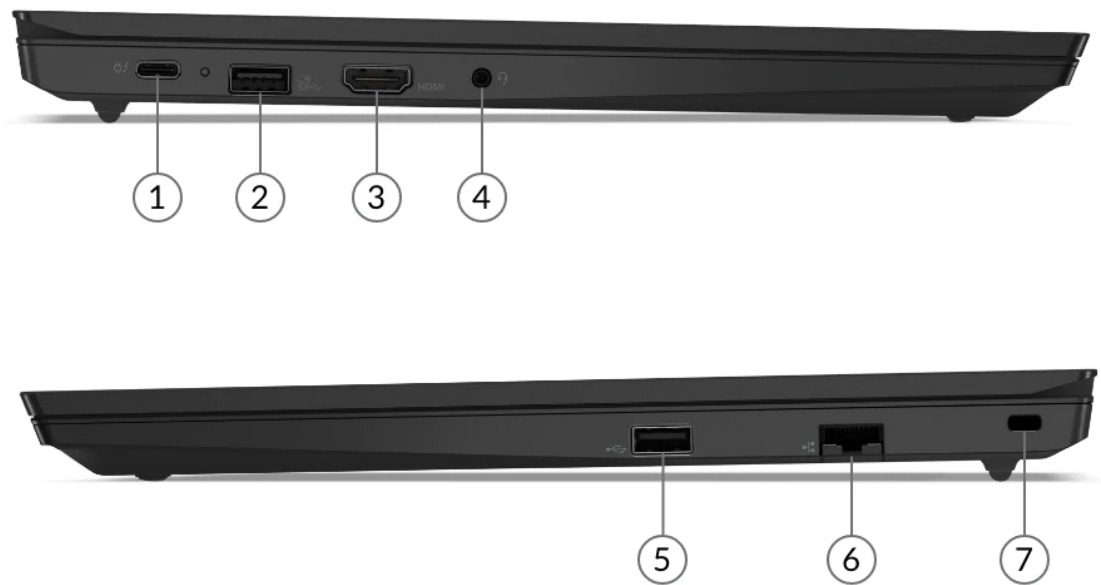


intel



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OVERVIEW



1. Thunderbolt 4	5. USB 2.0
2. USB 3.2 Gen 1 (Always On)	6. Ethernet (RJ-45)
3. HDMI 1.4b	7. Kensington Security Slot
4. Headphone / microphone combo jack (3.5mm)	

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	DDR4-3200	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12.1
NVIDIA® GeForce MX350	Discrete	2GB GDDR5	DirectX 12
NVIDIA GeForce MX450	Discrete	2GB GDDR5	DirectX 12

Notes:

1. The integrated graphics of i5 / i7 models is Intel Iris Xe Graphics but function as Intel UHD graphics due to single channel memory limitation

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 4096x2160@30Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 32GB DDR4-3200

Memory Slots

One DDR4 SO-DIMM slot

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

- Up to two drives, 2x M.2 SSD
- M.2 2242 SSD up to 512GB
 - M.2 2280 SSD up to 1TB

Storage Slot

- Two M.2 slots
- One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD
 - One M.2 2280 PCIe Gen 4x4 slot, supports M.2 2280 SSD

Storage Type^{***}

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

- Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™, audio by HARMAN

Microphone

Dual array microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life^[1]

MobileMark® 2014: 10.8 hr
MobileMark 2018: 8.2 hr

- Notes:
1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^{**[1][2]}

- 65W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

- No power adapter

Notes:

- AC adapter offerings depend on the country.
- No power adapter is for special bid only.

DESIGN

Display

Display**^{[1][2]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle
15.6"	FHD (1920x1080)	None	TN	220 nits	Anti-glare	16:9	500:1	45% NTSC	90°
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- Displays with 300nits brightness (multi-touch and non-touch) are NOT available in EMEA

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad, 69 x 100 mm (2.72 x 3.94 inches)

Mechanical^[1]

Dimensions (WxDxH)

365 x 240 x 18.9 mm (14.37 x 9.45 x 0.74 inches)

Weight

Starting at 1.7 kg (3.75 lbs)

Case Color**

- Black
- Mineral metallic

Case Material

Aluminium (top), PC + ABS (bottom)

Notes:

- The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111H-CG, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**^{[1][2]}

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x HDMI 1.4b
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
 - USB 2.0: 480 Mbit/s;
 - USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
 - USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
 - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
 - Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt.

For more compatible docking solutions, please visit [Docking for ThinkPad® E15 Gen 2 \(Intel\)](#)

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

SERVICE

Warranty

Base Warranty^[1]**

- 1-year mail-in service
- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo 15.6" laptop casual toplayer, polyester, grey
- ThinkPad Integrated Earbuds
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

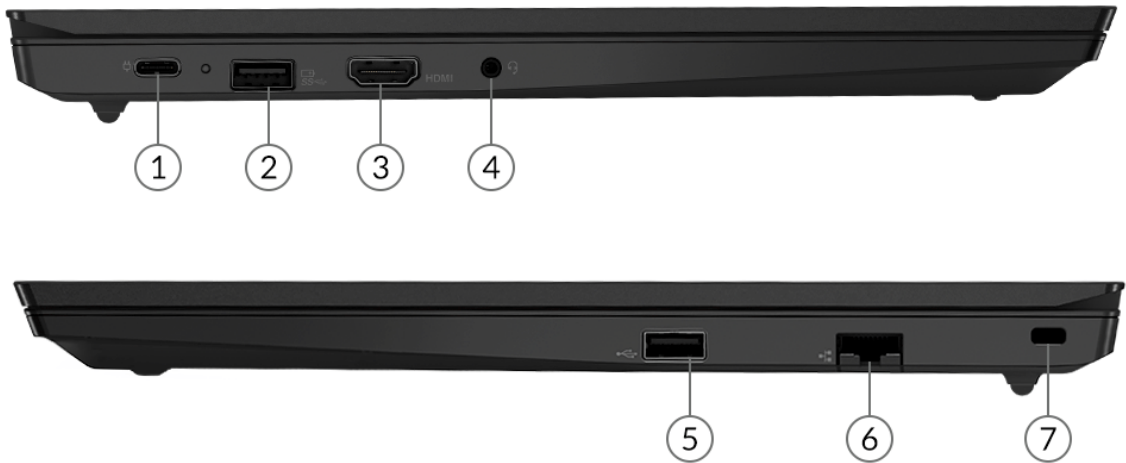
Other Certifications

TÜV Rheinland® Low Blue Light

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OVERVIEW



1. USB-C 3.2 Gen 1	5. USB 2.0
2. USB 3.2 Gen 1 (Always On)	6. Ethernet (RJ-45)
3. HDMI 1.4b	7. Kensington Security Slot
4. Headphone / microphone combo jack (3.5mm)	

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 5300U	4	8	2.6GHz	3.8GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 5500U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 5600U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5700U	8	16	1.8GHz	4.3GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5800U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Notes:

1. Ryzen 5 5600U, Ryzen 5 PRO 5650U and Ryzen 7 5800U are NOT available in EMEA

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4K@30Hz
- USB-C supports up to 4K@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory[1][2]

- Up to 20GB (4GB soldered + 16GB SO-DIMM) DDR4-3200
- Up to 24GB (8GB soldered + 16GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type
DDR4-3200

- Notes:
- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
 - 2. 4GB soldered memory is NOT available in EMEA

Storage

- Storage Support^[1]
- Up to two drives, 2x M.2 SSD
- M.2 2242 SSD up to 512GB
 - M.2 2280 SSD up to 1TB

Storage Type^{***}

Disk Type	Interface	Offering
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	128GB / 256GB / 512GB
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	256GB / 1TB

- Notes:
- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

- Optical
- None
- Card Reader
- No card reader

Multi-Media

- Audio Chip
- High Definition (HD) Audio, Realtek® ALC3287 codec
- Speakers
- Stereo speakers, 2W x2, Dolby® Audio™, audio by HARMAN
- Microphone
- Dual array microphone
- Camera^{**}
- HD 720p, with privacy shutter, fixed focus
 - IR & HD 720p hybrid, with privacy shutter, fixed focus

Battery

- Battery^{**}
- Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
 - Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Max Battery Life^[1]
- MobileMark® 2018: 10.3 hr (45Wh)
 - MobileMark 2018: 13.6 hr (57Wh)

- Notes:
- 1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- Power Adapter^{**[1][2]}

- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

- AC adapter offerings depend on the country.
- No power adapter is for special bid only.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle
15.6"	FHD (1920x1080)	None	TN	250 nits	Anti-glare	16:9	500:1	45% NTSC	90°
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°

Touchscreen

Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- Display with FHD 100% sRGB is NOT available in EMEA

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad, 69 x 100 mm (2.72 x 3.94 inches)

Mechanical^[1]

Dimensions (WxDxH)

365 x 240 x 18.9 mm (14.37 x 9.45 x 0.74 inches)

Weight

Starting at 1.7 kg (3.75 lbs)

Case Color

Black

Case Material

Aluminium (top), PC + ABS (bottom)

Notes:

- The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111GUS, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®^{[1][2]}**

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]**Standard Ports**

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
 - USB 2.0: 480 Mbit/s;
 - USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
 - USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
 - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
 - Thunderbolt™ 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® E15 Gen 3 \(AMD\)](#)

SECURITY & PRIVACY**Security****Security Chip****

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password

- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

SERVICE

Warranty

Base Warranty^[1]**

- 1-year mail-in service
- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- ThinkPad Integrated Earbuds
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- GREENGUARD®
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

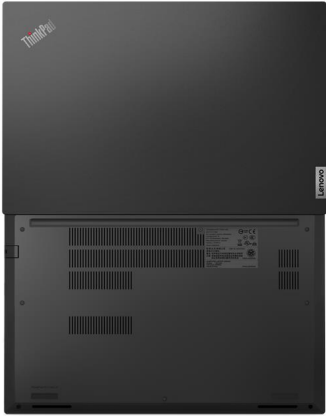
Other Certifications

TÜV Rheinland® Low Blue Light (Software Solution)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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AMD



AMD



AMD



AMD

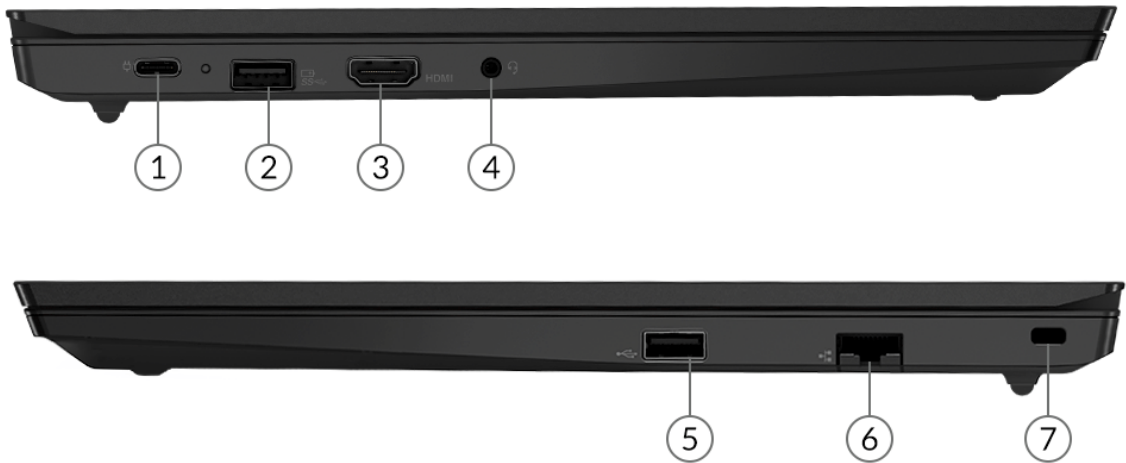


AMD



AMD

OVERVIEW



1. USB-C 3.2 Gen 1	5. USB 2.0
2. USB 3.2 Gen 1 (Always On)	6. Ethernet (RJ-45)
3. HDMI 1.4b	7. Kensington Security Slot
4. Headphone / microphone combo jack (3.5mm)	

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 5425U	4	8	2.7GHz	4.1GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 5625U	6	12	2.3GHz	4.3GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5825U	8	16	2.0GHz	4.5GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- No operating system

Graphics

Graphics

Graphics	Type	Memory	TGP	Key Features
AMD Radeon Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and USB-C®)

- HDMI supports up to 3840x2160@30Hz
- USB-C supports up to 4096x2160@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 2x M.2 SSD

- M.2 2242 SSD up to 512GB
- M.2 2280 SSD up to 1TB

Storage Slot

- Two M.2 slots
- One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD
 - One M.2 2280 PCIe Gen 3x4 slot, supports M.2 2280 SSD

Storage Type**[2]

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	1TB	Opal2

- Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
 2. The SSD with PCI 4.0x4 is downgraded to closer to PCIe 3.0x4 due to the system slot limitation.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™, audio by HARMAN

Microphone

Dual array microphone, near-field

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus

Battery

Battery**

- Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Integrated Li-Polymer 57Wh battery

Max Battery Life[1]

- Model with 45Wh battery:
MobileMark® 2018: up to 9.6 hr
JEITA 2.0: up to 14.1 hr
- Model with 57Wh battery:
MobileMark 2018: up to 12.0 hr
JEITA 2.0: up to 16.5 hr

- Notes:
1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**[1]

- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

- 1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle
15.6"	FHD (1920x1080)	None	TN	250 nits	Anti-glare	16:9	500:1	45% NTSC	90°
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°

Touchscreen

Non-touch

Notes:

- 1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- 2. Display with FHD 100% sRGB is NOT available in EMEA

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad, 69 x 100 mm (2.72 x 3.94 inches)

Mechanical[1]

Dimensions (WxDxH)

365 x 240 x 18.9 mm (14.37 x 9.45 x 0.74 inches)

Weight

Starting at 1.78 kg (3.92 lbs)

Case Color**[2]

- Black
- Mineral metallic

Case Material

Aluminium (top), PC + ABS (bottom)

Notes:

- 1. The system dimensions and weight vary depending on configurations.
- 2. Mineral metallic case is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111H-CG, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**[1][2]

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- AMD RZ616, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

- MediaTek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Realtek Wi-Fi 6E RTL8852CE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.

Ports^[1]**Standard Ports**

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® E15 Gen 4 \(AMD\)](#)

SECURITY & PRIVACY**Security****Security Chip****

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

SERVICE

Warranty

Base Warranty**^[1]

- 1-year mail-in service
- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories^[1]

ThinkPad Integrated Earbuds

Notes:

1. ThinkPad Integrated Earbuds is NOT available in EMEA

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

TÜV Rheinland® Low Blue Light (Software Solution)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

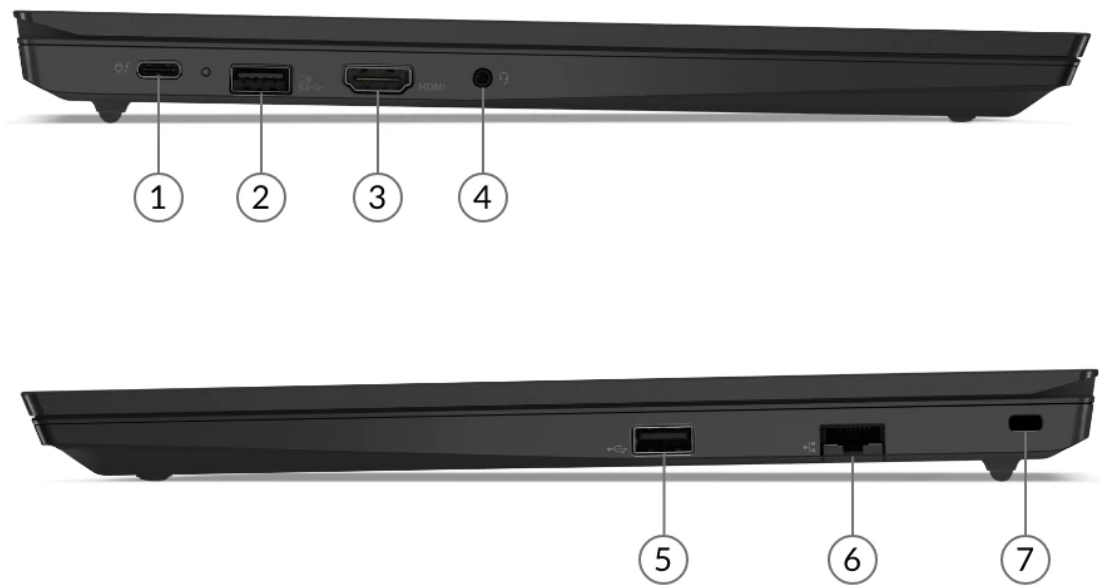


AMD



AMD

OVERVIEW



1. Thunderbolt 4	5. USB 2.0
2. USB 3.2 Gen 1 (Always On)	6. Ethernet (RJ-45)
3. HDMI	7. Kensington Security Slot
4. Headphone / microphone combo jack (3.5mm)	

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor**^[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1215U	6 (2 P-core + 4 E-core)	8	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	10MB	DDR4-3200	Intel UHD Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	DDR4-3200	Intel Iris Xe Graphics

Notes:

1. i5-1240P and i7-1260P are NOT available in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics**^[1]

Graphics	Type	Memory	TGP	Key Features
Intel UHD Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX 12.1
NVIDIA® GeForce MX550	Discrete	2GB GDDR6	-	DirectX 12

Notes:

1. Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual-channel memory. On the system with Intel Core i5 or i7 processor and single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- Up to 32GB DDR4-3200

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots**

- One DDR4 SO-DIMM slot
- One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive offering, up to 1TB M.2 2242 SSD

Storage Slot

Two M.2 slots

- One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD
- One M.2 2242 PCIe Gen 4x4 slot, supports M.2 2242 SSD

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	-	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™, audio by HARMAN

Microphone

Dual array microphone, near-field

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus

Battery

Battery**

- Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Integrated Li-Polymer 57Wh battery

Max Battery Life^[1]

- Model with 45Wh battery:
MobileMark® 2018: up to 8.0 hr
JEITA 2.0: up to 12.6 hr
Local video (1080p) playback@150nits: up to 11.1 hr
- Model with 57Wh battery:
MobileMark 2018: up to 10.8 hr

MobileMark 25: up to 9.9 hr
JEITA 2.0: up to 15.6 hr
Local video (1080p) playback@150nits: up to 14.6 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**[1]

- 65W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle
15.6"	FHD (1920x1080)	None	TN	250 nits	Anti-glare	16:9	500:1	45% NTSC	90°
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

2. Multi-touch panel is only for special bid in EMEA.

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad, 69 x 100 mm (2.72 x 3.94 inches)

Mechanical[1]

Dimensions (WxDxH)

365 x 240 x 18.9 mm (14.37 x 9.45 x 0.74 inches)

Weight

Starting at 1.7 kg (3.75 lbs)

Case Color[2]**

- Black
- Mineral metallic

Case Material

Aluminium (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Mineral metallic case is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-V, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®[1][2]**

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- AMD RZ616, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.

Ports^[1]

Standard Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® E15 Gen 4 \(Intel\)](#)

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

SERVICE

Warranty

Base Warranty**^[1]

- 1-year mail-in service
- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories**^[1]

- Lenovo 15.6" laptop casual toploader, polyester
- Lenovo 15.6" laptop casual toploader, polyester, grey
- ThinkPad Integrated Earbuds
- None

Notes:

1. ThinkPad Integrated Earbuds is NOT available in EMEA

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

TÜV Rheinland® Low Blue Light (Software Solution)

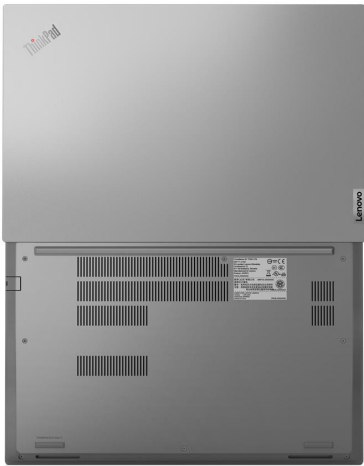
- Feature with ** means that only one offering listed under the feature is configured on selected models.
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OVERVIEW



1. USB-C 3.2 Gen 1	6. Power button
2. USB-C 3.2 Gen 2	7. MicroSD card reader
3. Ethernet extension connector *	8. USB 3.2 Gen 1
4. USB 3.2 Gen 1 (Always On)	9. HDMI 2.0
5. Headphone / microphone combo jack (3.5mm)	10. Kensington Security Slot

- Notes:
- Ports with * are only available on selected models
 - Optional smart card reader on the front side (not shown on the sample product above)
 - The combination of 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 5400U	4	8	2.6GHz	4.0GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 5600U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5850U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 3840x2160@60Hz
- USB-C supports up to 5120x2880@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 128GB M.2 2242 SSD or 1TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type**

Disk Type	Interface	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x2	-
M.2 2280 SSD	PCIe NVMe, PCIe x4	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

Dual array microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 46Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 10.93 hr
JEITA 2.0: 13.863 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

- 1. AC adapter offerings depend on the country.
- 2. No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	HD (1366x768)	None	TN	250 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
13.3"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	170°	-

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

- 1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical[1]

Dimensions (WxDxH)

311.5 x 219 x 17.6 mm (12.26 x 8.62 x 0.69 inches)

Weight

Starting at 1.39 kg (3.06 lbs)

Case Color**[2]

- Black
- Silver

Case Material

Aluminium (top), GFRP (bottom)

Notes:

- 1. The system dimensions and weight vary depending on configurations.
- 2. Storm grey case is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, RJ-45 via optional ThinkPad® Ethernet Extension Adapter Gen 2
- No Ethernet

WLAN + Bluetooth®^[1]^[2]**

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0, and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports*^[2]**

- 1x Ethernet extension connector
- 1x Smart card reader

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. If your computer has Ethernet icon, it supports wired Ethernet connection with ThinkPad Ethernet Extension Adapter or ThinkPad Basic/Pro/Ultra Docking Station.
If your computer does not have Ethernet icon, the Ethernet connector does not support Ethernet connection. We recommend you use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.

Docking**Docking**

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad L13 Gen 2 \(AMD\)](#)

Monitor Cable**Monitor Cable*****

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security**

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

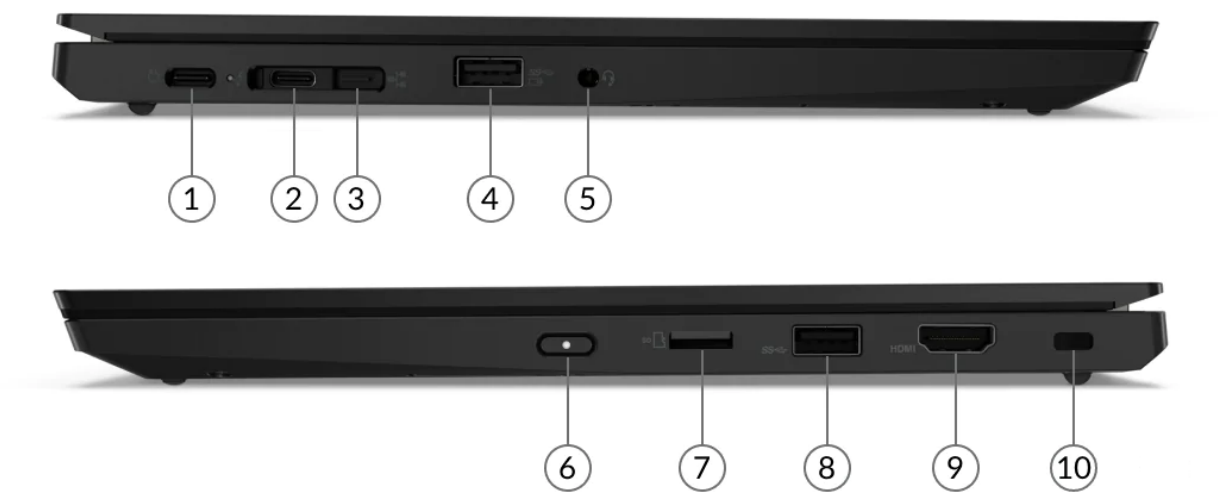


AMD



AMD

OVERVIEW



1. USB-C 3.2 Gen 2	6. Power button
2. Thunderbolt 4	7. MicroSD card reader
3. Ethernet extension connector *	8. USB 3.2 Gen 1
4. USB 3.2 Gen 1 (Always On)	9. HDMI 2.0
5. Headphone / microphone combo jack (3.5mm)	10. Kensington Security Slot

- Notes:
- Ports with * are only available on selected models
 - Optional smart card reader on the front side (not shown on the sample product above)
 - The combination of 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

Intel® Celeron® or 11th Generation Intel Core™ i3 / i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 6305	2	2	1.8GHz	-	4MB	DDR4-3200	Intel UHD Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	DDR4-3200	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12.1

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI®, USB-C® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz
- USB-C supports up to 5120x2160@60Hz
- Thunderbolt supports up to 5120x2160@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Memory Slots**

- Memory soldered to systemboard, no slots (4GB model)
- Memory soldered to systemboard, no slots, dual-channel (8GB or 16GB model)

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 512GB M.2 2242 SSD or 1TB M.2 2280 SSD

Storage Type^{**}

Disk Type	Interface	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Synaptic® CX11880 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

Dual array microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 46Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2014: 12.25 hr

MobileMark 2018: 8.91 hr

JEITA 2.0: 11.9 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^{**[1][2]}

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

- Notes:
- 1. AC adapter offerings depend on the country.
 - 2. No power adapter is for special bid only.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	HD (1366x768)	None	TN	250 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
13.3"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	170°	-

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

- Notes:
- 1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

311.5 x 219 x 17.6 mm (12.26 x 8.62 x 0.69 inches)

Weight

Starting at 1.39 kg (3.06 lbs)

Case Color**

- Black
- Silver

Case Material

Aluminium (top), GFRP (bottom)

- Notes:
- 1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ-45 via optional ThinkPad® Ethernet Extension

ThinkPad L13 Gen 2 (Intel)

Adapter Gen 2 or Lenovo USB-C to Ethernet Adapter

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2 or Lenovo USB-C to Ethernet Adapter
- No Ethernet

WLAN + Bluetooth[®]***^{[1][2]}

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi[®] + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{***[2]}

- 1x Ethernet extension connector
- 1x Side docking connector (Ethernet model only)
- 1x Smart card reader

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s
2. If your computer has Ethernet icon, it supports wired Ethernet connection with ThinkPad Ethernet Extension Adapter or ThinkPad Basic/Pro/Ultra Docking Station.
If your computer does not have Ethernet icon, the Ethernet connector does not support Ethernet connection. We recommend you use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.

Docking

Docking

Various docking solutions supported via side docking connector (optional), Thunderbolt or USB-C.
For more compatible docking solutions, please visit [Docking for ThinkPad L13 Gen 2 \(Intel\)](#)

Monitor Cable

Monitor Cable^{***}

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Nano-SIM card slot *	6. USB 3.2 Gen 1 (Always On)
2. USB-C 3.2 Gen 2	7. USB-C 3.2 Gen 2
3. USB 3.2 Gen 1	8. Kensington Nano Security Slot
4. Headphone / microphone combo jack (3.5mm)	9. Smart card reader *
5. HDMI	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**^[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 5425U	4	8	2.7GHz	4.1GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 5625U	6	12	2.3GHz	4.3GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5675U	6	12	2.3GHz	4.3GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5825U	8	16	2.0GHz	4.5GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5875U	8	16	2.0GHz	4.5GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Notes:

1. AMD Ryzen 5 5625U, and Ryzen 7 5825U are for special bid in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	TGP	Key Features
AMD Radeon Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 3840x2160@60Hz
- USB-C supports up to 5120x2880@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2242 SSD

Storage Slot

One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD

Storage Type^[2]

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. The SSD with PCI 4.0x4 is downgraded to closer to PCIe 3.0x4 due to AMD platform limitation.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, far-field, Dolby Voice

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 46Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 9.8 hr with 626 performance score @200nits
JEITA 2.0: up to 11.3 hr @150nits
Local video playback: up to 11.2 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 9.6 hr with 612 performance score @200nits
JEITA 2.0: up to 11.8 hr @150nits
Local video playback: up to 11.6 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 9.3 hr with 589 performance score @200nits
JEITA 2.0: up to 12.0 hr @150nits
Local video playback: up to 12.1 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA (touch), AMD Ryzen 7 PRO 5875U, 16GB DDR4, Win 11, 46Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (non-touch), AMD Ryzen 5 5625U, 16GB DDR4, Win 11, 46Wh battery, best power efficiency power mode
Alternate configuration 3: WUXGA (non-touch), AMD Ryzen 3 5425U, 8GB DDR4, Win 11, 46Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 2025](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft* link](#) for more information about the Windows Performance power slider.

Power Adapter

- Power Adapter**[1][2]
- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only
45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	800:1	45% NTSC	170°	-
13.3"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	-
13.3"	WUXGA (1920x1200)	None	IPS	500 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-

- Touchscreen
- Capacitive-type on-cell multi-touch, supports 10-point touch
 - Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

- Keyboard
- 6-row, spill-resistant, multimedia Fn keys with Unified Communications controls
- Keyboard Backlight
- LED backlight

- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 56 x 115 mm (2.24 x 4.53 inches)

Mechanical^[1]**Dimensions (WxDxH)**

305 x 218 x 17.3 mm (12.0 x 8.58 x 0.68 inches)

Weight

Starting at 1.25 kg (2.76 lbs)

Case Color**

- Storm grey
- Thunder black

Case Material

Aluminium (top), GFRP (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY**Network****Onboard Ethernet^[1]**

No Ethernet

WLAN + Bluetooth®[2][3]**

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® NFA-725A Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN[4]**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Qualcomm NFA-725A is for special bid only in EMEA.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
4. CAT16 is NOT available in EMEA.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad L13 Gen 3 \(AMD\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

50% PCC recycled plastic used in speaker enclosure
30% PCC recycled plastic used in the battery
95% PCC recycled plastic used in standard 65W adaptor
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD



AMD



AMD

OVERVIEW



1. Nano-SIM card slot *	6. USB 3.2 Gen 1 (Always On)
2. Thunderbolt 4	7. USB-C 3.2 Gen 2
3. USB 3.2 Gen 1	8. Kensington Nano Security Slot
4. Headphone / microphone combo jack (3.5mm)	9. Smart card reader *
5. HDMI	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1215U	6 (2 P-core + 4 E-core)	8	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	10MB	DDR4-3200	Intel UHD Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1245U	10 (2 P-core + 8 E-core)	12	P-core 1.6GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1265U	10 (2 P-core + 8 E-core)	12	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Notes:

1. i3-1215U, i5-1235U, and i7-1255U are NOT available in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	TGP	Key Features
Intel UHD Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX 12.1

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI®, USB-C® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz
- USB-C supports up to 5120x3200@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2242 SSD

Storage Slot

One M.2 2242 PCIe® Gen 4x4 slot, supports M.2 2242 SSD

Storage Type

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, far-field, Dolby Voice

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 46Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)

MobileMark® 2018: up to 8.9 hr with 629 performance score @200nits

JEITA 2.0: up to 14.3 hr @150nits

Local video playback: up to 11.9 hr @150nits

Alternate configuration 2

MobileMark 2018: up to 8.7 hr with 622 performance score @200nits

JEITA 2.0: up to 13.7 hr @150nits

Local video playback: up to 11.2 hr @150nits

Alternate configuration 3

MobileMark 2018: up to 8.2 hr with 704 performance score @200nits

JEITA 2.0: up to 13.0 hr @150nits

Local video playback: up to 11.0 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA (non-touch), Intel i3-1215U, 8GB DDR4, Win 11, 46Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (non-touch), Intel i5-1245U, 16GB DDR4, Win 11, 46Wh battery, best power efficiency power mode
Alternate configuration 3: WUXGA (non-touch), Intel i7-1265U, 32GB DDR4, Win 11, 46Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 2025](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

- Power Adapter**[1][2]
- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only
45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	800:1	45% NTSC	170°	-
13.3"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	-
13.3"	WUXGA (1920x1200)	None	IPS	500 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-

- Touchscreen
- Capacitive-type on-cell multi-touch, supports 10-point touch
 - Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

- Keyboard
- 6-row, spill-resistant, multimedia Fn keys with Unified Communications controls
- Keyboard Backlight
- LED backlight
 - Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 56 x 115 mm (2.24 x 4.53 inches)

Mechanical^[1]**Dimensions (WxDxH)**

305 x 218 x 17.3 mm (12.0 x 8.58 x 0.68 inches)

Weight

Starting at 1.26 kg (2.78 lbs)

Case Color^{[2]}**

- Storm grey
- Thunder black

Case Material

Aluminium (top), GFRP (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Storm grey case is NOT available in EMEA.

CONNECTIVITY**Network****Onboard Ethernet^[1]**

No Ethernet

WLAN + Bluetooth^{®[2][3]}**

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

WWAN^{[4]}**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
4. Fibocom L860-GL CAT16 is special bid only in EMEA.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{*}**

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad L13 Gen 3 \(Intel\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Enterprise
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

50% PCC recycled plastic used in speaker enclosure
30% PCC recycled plastic used in the battery
95% PCC recycled plastic used in standard 65W adaptor
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test in progress

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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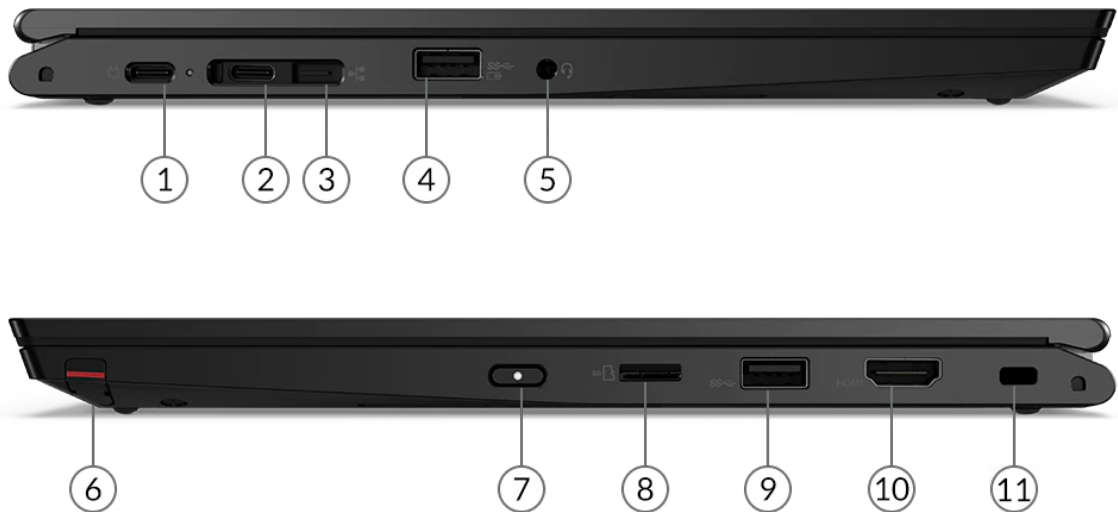


intel



intel

OVERVIEW



1. USB-C 3.2 Gen 1	7. Power button
2. USB-C 3.2 Gen 2	8. MicroSD card reader
3. Ethernet extension connector *	9. USB 3.2 Gen 1
4. USB 3.2 Gen 1 (Always On)	10. HDMI 2.0
5. Headphone / microphone combo jack (3.5mm)	11. Kensington Security Slot
6. Pen slot *	

- Notes:
- Ports with * are only available on selected models
 - Optional smart card reader on the front side (not shown on the sample product above)
 - The combination of 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 5400U	4	8	2.6GHz	4.0GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 5600U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5850U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 3840x2160@60Hz
- USB-C supports up to 5120x2880@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 128GB M.2 2242 SSD or 1TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type**

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x2	128GB	-
M.2 2280 SSD	PCIe NVMe, PCIe x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

Dual array microphone

Camera**^[1]

- Front HD 720p, with privacy shutter, fixed focus
- Front HD 720p, with privacy shutter, fixed focus; rear 5.0-megapixel, autofocus
- Front IR & HD 720p hybrid, with privacy shutter, fixed focus
- Front IR & HD 720p hybrid, with privacy shutter, fixed focus; rear 5.0-megapixel, autofocus

Notes:

1. Rear camera is selectable for fingerprint reader model only.

Sensor

Sensors

Accelerometer (G) sensor

Battery

Battery

Integrated Li-Polymer 46Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 10.55 hr

JEITA 2.0: 13.645 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^[1]

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-reflection, Anti-smudge	16:9	800:1	72% NTSC	170°	-

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Multi-mode

Multi-mode

Laptop, tent, stand, and tablet modes supported by 360° hinge

Input Device

Pen

- ThinkPad® Pen Pro - 8, with built-in rechargeable battery, 4096 levels of pressure sensitivity, on-board garaged and rechargeable
- No pen (with a pen garage ready, pen sold separately)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

311.5 x 219 x 17.6 mm (12.26 x 8.62 x 0.69 inches)

Weight

Starting at 1.44 kg (3.17 lbs)

Case Color**^[2]

- Black
- Silver

Case Material

Aluminium (top), GFRP (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Storm grey case is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- No Ethernet

WLAN + Bluetooth®**[1][2]

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0, and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports***[2]

- 1x Ethernet extension connector
- 1x Smart card reader

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. If your computer has Ethernet icon, it supports wired Ethernet connection with ThinkPad Ethernet Extension Adapter or ThinkPad Basic/Pro/Ultra Docking Station.
If your computer does not have Ethernet icon, the Ethernet connector does not support Ethernet connection. We recommend you use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad L13 Yoga® Gen 2 \(AMD\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)

- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

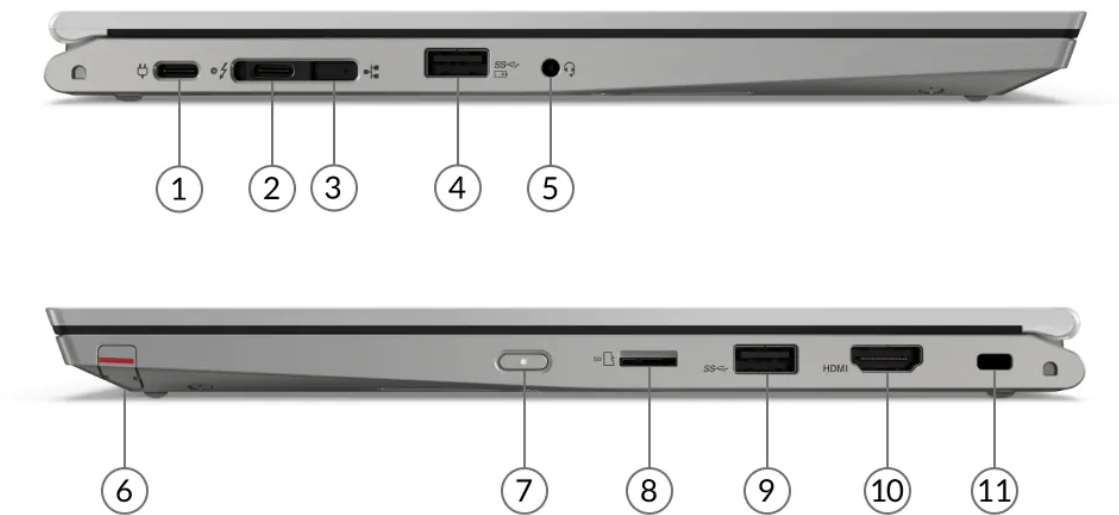


AMD



AMD

OVERVIEW



1. USB-C 3.2 Gen 2	7. Power button
2. Thunderbolt 4	8. MicroSD card reader
3. Ethernet extension connector *	9. USB 3.2 Gen 1
4. USB 3.2 Gen 1 (Always On)	10. HDMI 2.0
5. Headphone / microphone combo jack (3.5mm)	11. Kensington Security Slot
6. Pen slot	

- Notes:
- Ports with * are only available on selected models
 - Optional smart card reader on the front side (not shown on the sample product above)
 - The combination of 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	DDR4-3200	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12.1

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI®, USB-C® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz
- USB-C supports up to 5120x2160@60Hz
- Thunderbolt supports up to 5120x2160@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Memory Slots**

- Memory soldered to systemboard, no slots (4GB model)
- Memory soldered to systemboard, no slots, dual-channel (8GB or 16GB model)

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the

technology develops.

Storage

Storage Support^[1]

One drive, up to 512GB M.2 2242 SSD or 1TB M.2 2280 SSD

Storage Type^{**}

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Synaptic® CX11880 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

Dual array microphone

Camera^{**[1]}

- Front HD 720p, with privacy shutter, fixed focus
- Front HD 720p, with privacy shutter, fixed focus; rear 5.0-megapixel, autofocus
- Front IR & HD 720p hybrid, with privacy shutter, fixed focus
- Front IR & HD 720p hybrid, with privacy shutter, fixed focus; rear 5.0-megapixel, autofocus

Notes:

1. Rear camera is selectable for fingerprint reader model only.

Sensor

Sensors

Accelerometer (G) sensor

Battery

Battery

Integrated Li-Polymer 46Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2014: 10.36 hr

MobileMark 2018: 8.36 hr

JEITA 2.0: 10.3 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^[1]

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-reflection, Anti-smudge	16:9	800:1	72% NTSC	170°	-

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Multi-mode

Multi-mode

Laptop, tent, stand, and tablet modes supported by 360° hinge

Input Device

Pen

- ThinkPad® Pen Pro - 8, with built-in rechargeable battery, 4096 levels of pressure sensitivity, on-board garaged and rechargeable
- No pen (pen sold separately)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

311.5 x 219 x 17.6 mm (12.26 x 8.62 x 0.69 inches)

Weight

Starting at 1.44 kg (3.17 lbs)

Case Color**

- Black
- Silver

Case Material

Aluminium (top), GFRP (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2 or Lenovo USB-C to Ethernet Adapter
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2 or Lenovo USB-C to Ethernet Adapter
- No Ethernet

WLAN + Bluetooth®^{[1][2]}**

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

WWAN

No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports*^[2]**

- 1x Ethernet extension connector
- 1x Side docking connector (Ethernet model only)
- 1x Smart card reader

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s
2. If your computer has Ethernet icon, it supports wired Ethernet connection with ThinkPad Ethernet Extension Adapter or ThinkPad Basic/Pro/Ultra Docking Station.
If your computer does not have Ethernet icon, the Ethernet connector does not support Ethernet connection. We recommend you use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.

Docking

Docking

Various docking solutions supported via side docking connector (optional), Thunderbolt or USB-C.
For more compatible docking solutions, please visit [Docking for ThinkPad L13 Yoga® Gen 2 \(Intel\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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OVERVIEW



1. Nano-SIM card slot *	6. HDMI
2. USB-C 3.2 Gen 2	7. USB 3.2 Gen 1 (Always On)
3. USB 3.2 Gen 1	8. USB-C 3.2 Gen 2
4. Headphone / microphone combo jack (3.5mm)	9. Kensington Nano Security Slot
5. Pen slot	10. Smart card reader *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 5425U	4	8	2.7GHz	4.1GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 5625U	6	12	2.3GHz	4.3GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5675U	6	12	2.3GHz	4.3GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5825U	8	16	2.0GHz	4.5GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5875U	8	16	2.0GHz	4.5GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Notes:

1. AMD Ryzen 5 5625U, and Ryzen 7 5825U are for special bid in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	TGP	Key Features
AMD Radeon Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 3840x2160@60Hz
- USB-C supports up to 5120x2880@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2242 SSD

Storage Slot

One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD

Storage Type^[2]

Disk Type	Interface	RPM	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	-	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

2. The SSD with PCI 4.0x4 is downgraded to closer to PCIe 3.0x4 due to AMD platform limitation.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, far-field, Dolby Voice

Camera**

- Front HD 720p, with privacy shutter, fixed focus
- Front HD 720p, with privacy shutter, fixed focus; rear 5.0-megapixel, autofocus
- Front IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- Front IR & FHD 1080p hybrid, with privacy shutter, fixed focus; rear 5.0-megapixel, autofocus

Battery

Battery

Integrated Li-Polymer 46Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 9.8 hr with 628 performance score @200nits
JEITA 2.0: up to 11.7 hr @150nits
Local video playback: up to 11.5 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 9.7 hr with 623 performance score @200nits
JEITA 2.0: up to 12.1 hr @150nits
Local video playback: up to 12.1 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 9.4 hr with 590 performance score @200nits
JEITA 2.0: up to 12.5 hr @150nits
Local video playback: up to 12.5 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA (touch), AMD Ryzen 7 PRO 5875U, 16GB DDR4, Win 11, 46Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (touch), AMD Ryzen 5 5625U, 16GB DDR4, Win 11, 46Wh battery, best power efficiency power mode
Alternate configuration 3: WUXGA (touch), AMD Ryzen 3 5425U, 8GB DDR4, Win 11, 46Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 2025](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft* link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**[1][2]

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only
45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-reflection, Anti-smudge	16:10	1000:1	100% sRGB	170°	-
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare, anti-smudge	16:10	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard

Touchscreen

OGS (One Glass Solution) multi-touch, supports 10-point touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Multi-mode

Multi-mode

Laptop, tent, stand, and tablet modes supported by 360° hinge

Input Device

Pen

- Lenovo Integrated Pen, with built-in rechargeable battery, 4096 levels of pressure sensitivity, on-board garaged and rechargeable
- No pen (with a pen garage ready, pen sold separately)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 56 x 115 mm (2.24 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

305 x 218 x 17.1 mm (12.0 x 8.58 x 0.67 inches)

Weight

Starting at 1.31 kg (2.89 lbs)

Case Color**

- Storm grey
- Thunder black

Case Material

Aluminium (top), GFRP (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®**[2][3]

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® NFA-725A Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**[4]

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Qualcomm NFA-725A is for special bid only in EMEA.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
4. CAT16 is NOT available in EMEA.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader

- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad L13 Yoga® Gen 3 \(AMD\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

50% PCC recycled plastic used in speaker enclosure
30% PCC recycled plastic used in the battery
95% PCC recycled plastic used in standard 65W adaptor
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD



AMD



AMD

OVERVIEW



1. Nano-SIM card slot *	6. HDMI
2. Thunderbolt 4	7. USB 3.2 Gen 1 (Always On)
3. USB 3.2 Gen 1	8. USB-C 3.2 Gen 2
4. Headphone / microphone combo jack (3.5mm)	9. Kensington Nano Security Slot
5. Pen slot	10. Smart card reader *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1215U	6 (2 P-core + 4 E-core)	8	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	10MB	DDR4-3200	Intel UHD Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1245U	10 (2 P-core + 8 E-core)	12	P-core 1.6GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1265U	10 (2 P-core + 8 E-core)	12	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Notes:
1. i3-1215U, i5-1235U, and i7-1255U are NOT available in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	TGP	Key Features
Intel UHD Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX 12.1

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI®, USB-C® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz
- USB-C supports up to 5120x3200@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type
DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2242 SSD

Storage Slot

One M.2 2242 PCIe® Gen 4x4 slot, supports M.2 2242 SSD

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	-	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, far-field, Dolby Voice

Camera**

- Front HD 720p, with privacy shutter, fixed focus
- Front FHD 1080p, with privacy shutter, fixed focus
- Front FHD 1080p, with privacy shutter, fixed focus; rear 5.0-megapixel, autofocus
- Front HD 720p, with privacy shutter, fixed focus; rear 5.0-megapixel, autofocus
- Front IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- Front IR & FHD 1080p hybrid, with privacy shutter, fixed focus; rear 5.0-megapixel, autofocus

Battery

Battery

Integrated Li-Polymer 46Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 8.6 hr with 733 performance score @200nits
JEITA 2.0: up to 13.5 hr @150nits
Local video playback: up to 11.6 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 8.4 hr with 703 performance score @200nits
JEITA 2.0: up to 13.2 hr @150nits
Local video playback: up to 10.9 hr @150nits

Alternate configuration 3

MobileMark 2018: up to 8.0 hr with 760 performance score @200nits
JEITA 2.0: up to 12.9 hr @150nits
Local video playback: up to 10.6 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA (touch), Intel i3-1215U, 8GB DDR4, Win 11, 46Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (touch), Intel i5-1245U, 16GB DDR4, Win 11, 46Wh battery, best power efficiency power mode
Alternate configuration 3: WUXGA (touch), Intel i7-1265U, 32GB DDR4, Win 11, 46Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 2025](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

- Power Adapter**^{[1][2]}
- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.
2. 45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-reflection, Anti-smudge	16:10	1000:1	100% sRGB	170°	-
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare, anti-smudge	16:10	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard

Touchscreen

OGS (One Glass Solution) multi-touch, supports 10-point touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Multi-mode

Multi-mode

Laptop, tent, stand, and tablet modes supported by 360° hinge

Input Device

- Pen
- Lenovo Integrated Pen, with built-in rechargeable battery, 4096 levels of pressure sensitivity, on-board garaged and rechargeable
 - No pen (with a pen garage ready, pen sold separately)
- Keyboard
- 6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 56 x 115 mm (2.24 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

305 x 218 x 17.1 mm (12.0 x 8.58 x 0.67 inches)

Weight

Starting at 1.32 kg (2.92 lbs)

Case Color**

- Storm grey
- Thunder black

Case Material

Aluminium (top), GFRP (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®**[2][3]

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**[4]

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
4. Fibocom L860-GL CAT16 is special bid only in EMEA.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
 - USB 2.0: 480 Mbit/s;
 - USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
 - USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
 - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
 - Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad L13 Yoga® Gen 3 \(Intel\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Enterprise
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

50% PCC recycled plastic used in speaker enclosure
30% PCC recycled plastic used in the battery
95% PCC recycled plastic used in standard 65W adaptor
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories^{***}

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3

- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test in progress

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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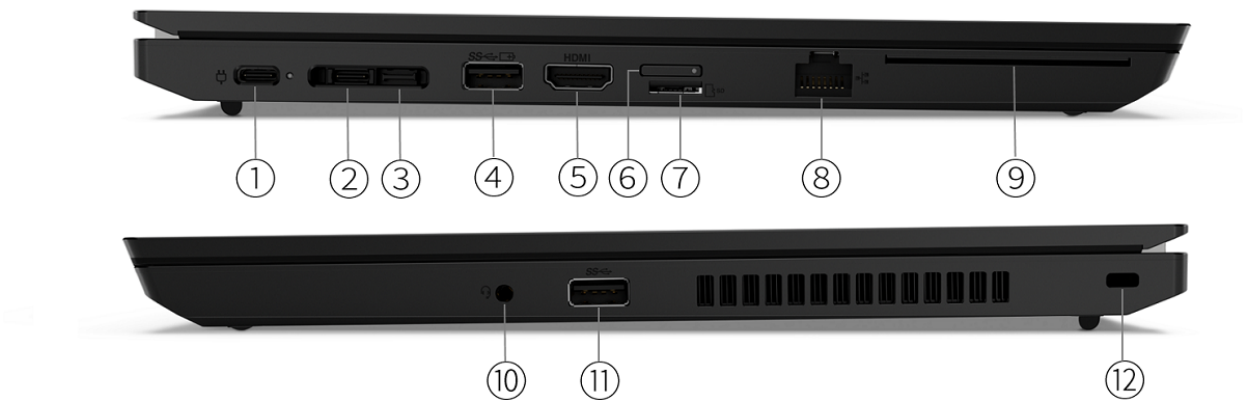


intel



intel

OVERVIEW



1. USB-C 3.2 Gen 1	7. MicroSD card reader
2. USB-C 3.2 Gen 2	8. Ethernet (RJ-45)
3. Side docking connector	9. Smart card reader *
4. USB 3.2 Gen 1 (Always On)	10. Headphone / microphone combo jack (3.5mm)
5. HDMI 2.0	11. USB 3.2 Gen 1
6. Nano-SIM card slot *	12. Kensington Security Slot

- Notes:
- Ports with * are only available on selected models
 - The combination of 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 5400U	4	8	2.6GHz	4.0GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 3 PRO 5450U	4	8	2.6GHz	4.0GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 5600U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5850U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4096x2160@60Hz
- USB-C supports up to 5120x3200@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 512GB M.2 2242 SSD or 1TB M.2 2280 SSD

Storage Type^{**}

Disk Type	Interface	RPM	Offering	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-	-
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	-	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 11.8 hr
JEITA 2.0: 15.3 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^{**[1][2]}

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.

2. No power adapter is for special bid only
45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical[1]

Dimensions (WxDxH)

331 x 235 x 20.4 mm (13.03 x 9.25 x 0.80 inches)

Weight

Starting at 1.59 kg (3.49 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Realtek RTL8111HN (non-DASH models), 1x RJ-45, supports Wake-on-LAN

- Gigabit Ethernet, Realtek RTL8111EPV (DASH models), 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®^{[1][2]}**

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Qualcomm® QCNFA765, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E is only available on Windows 11.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 2.0 and DisplayPort™ 1.4)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 2.0 and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® L14 Gen 2 \(AMD\)](#)

Monitor Cable**Monitor Cable*****

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

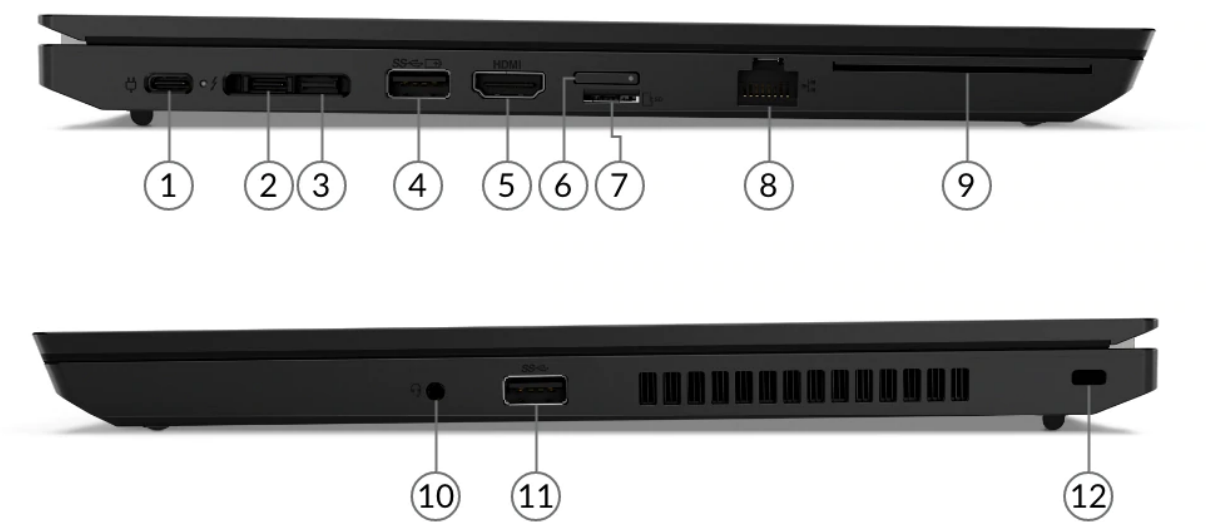


AMD



AMD

OVERVIEW



1. USB-C 3.2 Gen 1	7. MicroSD card reader
2. Thunderbolt 4	8. Ethernet (RJ-45) *
3. Side docking connector *	9. Smart card reader *
4. USB 3.2 Gen 1 (Always On)	10. Headphone / microphone combo jack (3.5mm)
5. HDMI 2.0	11. USB 3.2 Gen 1
6. Nano-SIM card slot *	12. Kensington Security Slot

- Notes:
- Ports with * are only available on selected models
 - The combination of 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

Intel® Pentium® or 11th Generation Intel Core™ i3 / i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Pentium Gold 7505	2	4	2.0GHz	3.5GHz	4MB	DDR4-3200	Intel UHD Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	DDR4-3200	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

Operating System**[]

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise LTSC
- Linux
- Ubuntu Linux
- No operating system

Notes:

- Windows 10 IoT Enterprise LTSC is for special bid only

Graphics

Graphics**[]

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12.1
NVIDIA® GeForce MX450	Discrete	2GB GDDR6	DirectX 12

Notes:

- Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual-channel memory. On the system with Intel Core i5 or i7 processor and single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics
NVIDIA GeForce MX450 is NOT available in EMEA

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI®, USB-C® and Thunderbolt™)

- HDMI supports up to 4096x2160@60Hz
- USB-C supports up to 5120x3200@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory[]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}

- HDD/SSD mode: up to two drives, 1x 2.5" HDD + 1x M.2 SSD
 - 2.5" HDD up to 2TB
 - M.2 2242 SSD up to 512GB
- One SSD mode: one drive, 1x M.2 SSD
 - M.2 2280 SSD up to 1TB
 - M.2 2242 SSD up to 512GB

Storage Slot^[3]

- HDD/SSD mode: one 2.5" drive slot + one M.2 slot
 - One 2.5" drive slot, supports 2.5" SATA HDD
 - One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD
- One SSD mode: one M.2 slot
 - One M.2 2280 PCIe Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	APS (Active Protection System™)
2.5" SATA HDD	SATA 6Gb/s	7.2K	APS (Active Protection System)
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
- 2. HDD/SSD mode is NOT available in EMEA
- 3. System has one HDD slot or one M.2 2280 slot exclusively for storage

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone^[1]

- Dual array microphone, far-field
- No microphone

Camera^{**[2]}

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus

- No camera

Notes:

- No microphone is for special bid only.
- No camera is for special bid only.

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 9.01 hr
JEITA 2.0: 11.815 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^{**[1][2]}

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

- AC adapter offerings depend on the country.
- No power adapter is for special bid only
45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA

DESIGN

Display

Display^{**[1]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Aluminium models	331 x 235 x 19.1 mm (13.03 x 9.25 x 0.75 inches)
PC + ABS models	331 x 235 x 20.4 mm (13.03 x 9.25 x 0.80 inches)

Weight

Models	Weight
Aluminium models	Starting at 1.74 kg (3.84 lbs)
PC + ABS models	Starting at 1.59 kg (3.49 lbs)

Case Color

Black

Case Material^{**[2]}

- Aluminium (top), PC + ABS (bottom)
- PC + ABS (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Aluminium top cover is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet^{**}

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), 1x RJ-45, supports Wake-on-LAN
- No Ethernet

WLAN + Bluetooth^{**[1][2]}

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

WWAN^{**}

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

- Near Field Communication

- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{*[2]}**

- 1x Ethernet (RJ-45)
- 1x Side docking connector
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s
2. For the models without Ethernet connector, it is recommended to use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.

Docking**Docking**

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® L14 Gen 2 \(Intel\)](#)

Monitor Cable**Monitor Cable^{***}**

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password (for NVMe SSD)
- Hard disk password (for HDD)
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{[1]}**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0

- TCO Certified
- RoHS compliant

Other Certifications

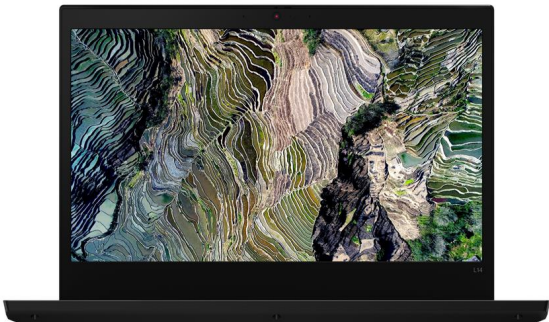
Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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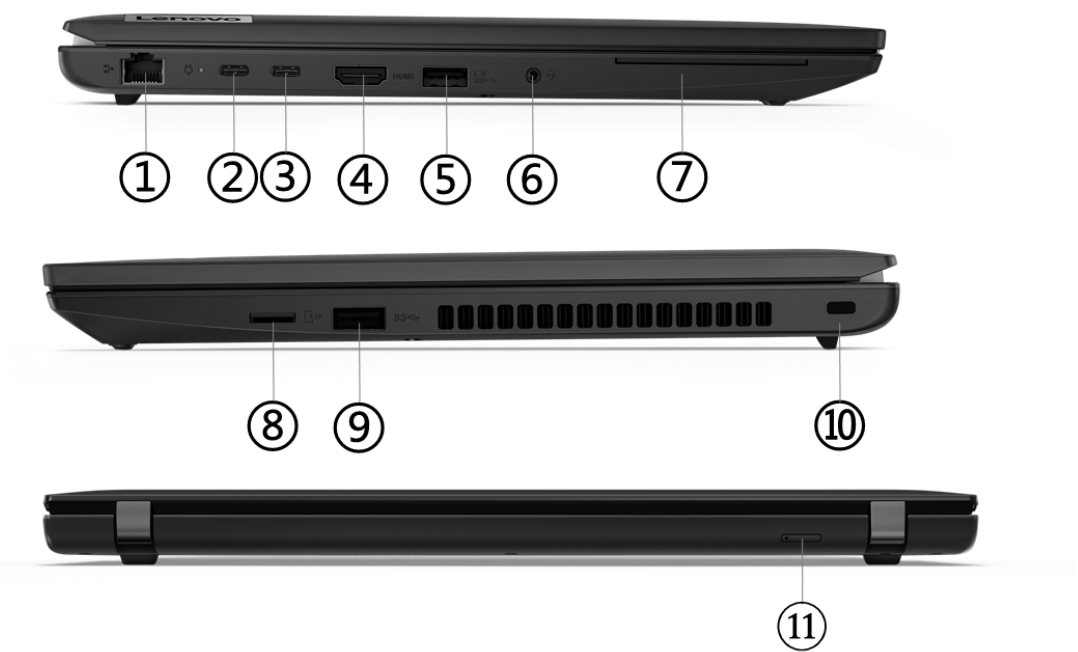


intel



intel

OVERVIEW



1. Ethernet (RJ-45)	7. Smart card reader *
2. USB-C 3.2 Gen 1	8. MicroSD card reader
3. USB-C 3.2 Gen 2	9. USB 3.2 Gen 1
4. HDMI	10. Kensington Nano Security Slot
5. USB 3.2 Gen 1 (Always On)	11. Nano-SIM card slot (WWAN model) *
6. Headphone / microphone combo jack (3.5mm)	

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**^[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 5425U	4	8	2.7GHz	4.1GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 3 PRO 5475U	4	8	2.7GHz	4.1GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 5625U	6	12	2.3GHz	4.3GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5675U	6	12	2.3GHz	4.3GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5825U	8	16	2.0GHz	4.5GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5875U	8	16	2.0GHz	4.5GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Notes:

1. AMD Ryzen 3 5425U, Ryzen 5 5625U, and Ryzen 7 5825U are for special bid in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	TGP	Key Features
AMD Radeon Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 3840x2160@60Hz
- USB-C supports up to 5120x3200@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2242 SSD

Storage Slot

One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD

Storage Type^[2]

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
- 2. The SSD with PCI 4.0x4 is downgraded to closer to PCIe 3.0x4 due to AMD platform limitation.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, far-field, Dolby Voice

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus

Battery

Battery**

- Integrated Li-Polymer 42Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
- Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 12.6 hr with 717 performance score @200nits
JEITA 2.0: up to 15.4 hr @150nits
Local video playback: up to 13.7 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 11.1 hr with 633 performance score @200nits
JEITA 2.0: up to 14.3 hr @150nits
Local video playback: up to 12.3 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 10.1 hr with 577 performance score @200nits
JEITA 2.0: up to 13.3 hr @150nits

Local video playback: up to 12.0 hr @150nits

Notes:

1. Configuration 1 (max battery life): HD (non-touch), AMD Ryzen 7 PRO 5875U, 8GB DDR4, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 2: FHD (touch), AMD Ryzen 5 PRO 5675U, 32GB DDR4, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 3: FHD (touch), AMD Ryzen 3 PRO 5475U, 64GB DDR4, Win 11, 57Wh battery, best power efficiency power mode
- All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 2025](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**[1][2]

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.
In EMEA only 65W USB-C AC adapter is available.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	1500:1	100% sRGB	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	1000:1	45% NTSC	170°	-

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
2. Display with FHD 100% sRGB is for special bid in EMEA.
Display with HD TN is for special bid in EMEA.

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 56 x 115 mm (2.24 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Aluminium (top), PC + CF (bottom) models	325.4 x 217 x 18.73 mm (12.81 x 8.54 x 0.74 inches)
Aluminium (top), PC + ABS (bottom) models	325.4 x 217 x 18.93 mm (12.81 x 8.54 x 0.75 inches)
PC + ABS (top), PC + CF (bottom) models	325.4 x 217 x 19.63 mm (12.81 x 8.54 x 0.77 inches)
PC + ABS (top), PC + ABS (bottom) models	325.4 x 217 x 19.83 mm (12.81 x 8.54 x 0.78 inches)

Weight

Starting at 1.39 kg (3.06 lbs)

Case Color

Thunder black

Case Material^{**[2]}

- Aluminium (top), PC + CF (bottom)
- Aluminium (top), PC + ABS (bottom)
- PC + ABS (top), PC + CF (bottom)
- PC + ABS (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Aluminium top cover is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet^{**}

- Gigabit Ethernet, Realtek RTL8111HN (non-DASH models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Realtek RTL8111EPV (DASH models), 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth^{®**[1][2]}

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Qualcomm® QCNFA765, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

WWAN^{**}

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

No SIM card inbox

NFC^[3]

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.

Qualcomm QCNFA765 is NOT available in EMEA.
3. NFC is for special bid in EMEA.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0, and DisplayPort 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{***}

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® L14 Gen 3 \(AMD\)](#)

Monitor Cable

Monitor Cable^{***}

- Lenovo HDMI to DP Monitor Adapter
- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

50% PCC recycled plastic used in speaker enclosure
30% PCC recycled plastic used in the battery
95% PCC recycled plastic used in standard 65W adaptor
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified

- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

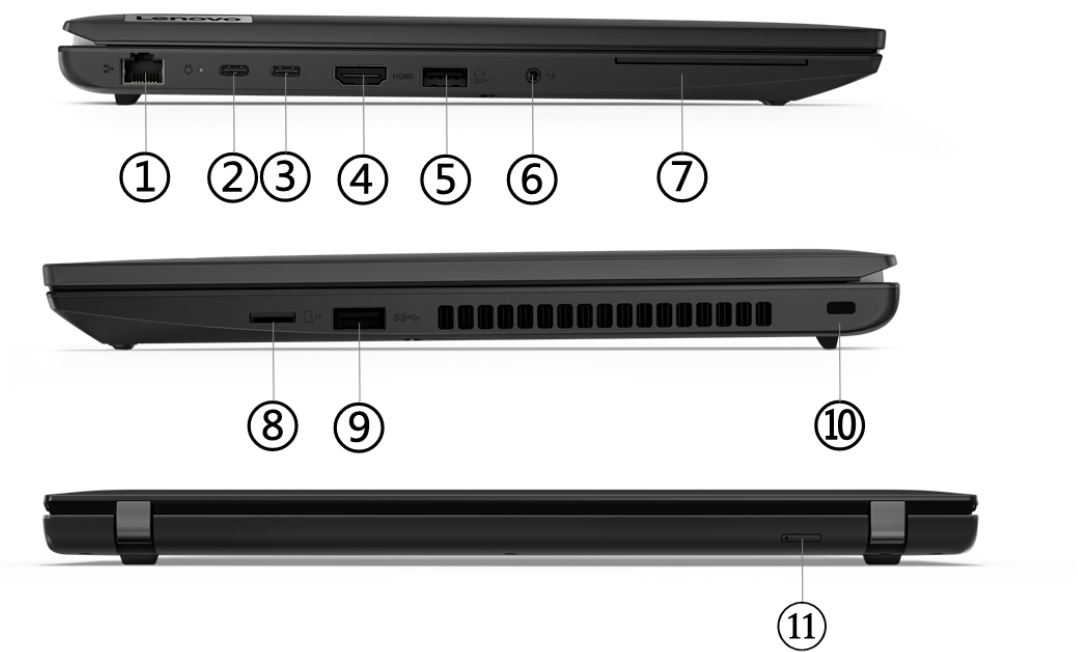


AMD



AMD

OVERVIEW



1. Ethernet (RJ-45)	7. Smart card reader *
2. USB-C 3.2 Gen 1	8. MicroSD card reader
3. Thunderbolt 4	9. USB 3.2 Gen 1
4. HDMI	10. Kensington Nano Security Slot
5. USB 3.2 Gen 1 (Always On)	11. Nano-SIM card slot *
6. Headphone / microphone combo jack (3.5mm)	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Pentium® or 12th Generation Intel Core™ i3 / i5 / i7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Pentium 8505	5 (1 P-core + 4 E-core)	6	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	8MB	DDR4-3200	Intel UHD Graphics
Core i3-1215U	6 (2 P-core + 4 E-core)	8	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	10MB	DDR4-3200	Intel UHD Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1245U	10 (2 P-core + 8 E-core)	12	P-core 1.6GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1265U	10 (2 P-core + 8 E-core)	12	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i5-1250P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	DDR4-3200	Intel Iris Xe Graphics

Notes:

1. i5-1240p, i5-1250p, and i7-1260p are for special bid only in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	TGP	Key Features
Intel UHD Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX 12.1

Notes:

1. Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual-channel memory. On the system with Intel Core i5 or i7 processor and single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.

NVIDIA® GeForce MX550 is Not available in EMEA.

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI®, USB-C® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz

- USB-C supports up to 5120x3200@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset
Intel SoC (System on Chip) platform

Memory

Max Memory^[1]
Up to 64GB DDR4-3200

Memory Slots
Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type
DDR4-3200

Notes:
1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]
One drive, up to 1TB M.2 2242 SSD

Storage Slot
One M.2 2242 PCIe® Gen 4x4 slot, supports M.2 2242 SSD

Storage Type

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2

Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Card Reader
MicroSD card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers
Stereo speakers, 2W x2, Dolby® Audio™

Microphone
Dual array microphone, far-field, Dolby Voice

- Camera**
- HD 720p, with privacy shutter, fixed focus
 - FHD 1080p, with privacy shutter, fixed focus
 - IR & FHD 1080p hybrid, with privacy shutter, fixed focus

Battery

- Battery**
- Integrated Li-Polymer 42Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
 - Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]
Configuration 1 (max battery life)

MobileMark® 2018: up to 12.1 hr with 832 performance score @200nits
JEITA 2.0: up to 18.2 hr @150nits
Local video playback: up to 20.8 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 10.3 hr with 999 performance score @200nits
JEITA 2.0: up to 14.9 hr @150nits
Local video playback: up to 16.1 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 6.7 hr with 994 performance score @200nits
JEITA 2.0: up to 9.7 hr @150nits
Local video playback: up to 10.3 hr @150nits

Notes:

1. Configuration 1 (max battery life): FHD (non-touch), Intel i3-1215U, 4GB DDR4, Win 10, 57Wh battery, best power efficiency power mode
Alternate configuration 2: FHD (touch), Intel i5-1250P, 16GB DDR4, Win 10, 57Wh battery, best power efficiency power mode
Alternate configuration 3: FHD (non-touch), Intel i7-1260P, 64GB DDR4, Win 10, 42Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 2025](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**[1][2]

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.
45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	1500:1	100% sRGB	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	1000:1	45% NTSC	170°	-

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

- Notes:
- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
 - Display with FHD 100% sRGB is for special bid in EMEA.
Display with HD TN is for special bid in EMEA.

Input Device

- Keyboard**
- 6-row, spill-resistant, multimedia Fn keys with Unified Communications controls
- Keyboard Backlight**
- LED backlight
 - Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 56 x 115 mm (2.24 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Aluminium (top), PC + CF (bottom) models	325.4 x 217 x 18.73 mm (12.81 x 8.54 x 0.74 inches)
Aluminium (top), PC + ABS (bottom) models	325.4 x 217 x 18.93 mm (12.81 x 8.54 x 0.75 inches)
PC + ABS (top), PC + CF (bottom) models	325.4 x 217 x 19.63 mm (12.81 x 8.54 x 0.77 inches)
PC + ABS (top), PC + ABS (bottom) models	325.4 x 217 x 19.83 mm (12.81 x 8.54 x 0.78 inches)

- Weight**
- Starting at 1.39 kg (3.06 lbs)
- Case Color**

Thunder black

Case Material^{**[2]}

- Aluminium (top), PC + CF (bottom)
- Aluminium (top), PC + ABS (bottom)
- PC + ABS (top), PC + CF (bottom)
- PC + ABS (top), PC + ABS (bottom)

- Notes:
- The system dimensions and weight vary depending on configurations.
 - Aluminium top cover is NOT available in EMEA.

CONNECTIVITY

Network

- Onboard Ethernet**
- Gigabit Ethernet, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®^{**[1][2]}

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Qualcomm® QCNFA725, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm QCNFA765, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

WWAN^{**[3]}

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

No SIM card inbox

NFC^[4]

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
Qualcomm QCNFA725 and Qualcomm QCNFA765 are NOT available in EMEA.
3. CAT16 is NOT available in EMEA.
4. NFC is for special bid in EMEA.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{***}

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® L14 Gen 3 \(Intel\)](#)

Monitor Cable

Monitor Cable^{***}

- Lenovo HDMI to DP Monitor Adapter
- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]**

- Intel vPro Enterprise
- Intel vPro Essentials
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

50% PCC recycled plastic used in speaker enclosure
25-30% PCC recycled plastic used in the battery
95% PCC recycled plastic used in standard 65W adaptor
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS**Green Certifications****Green Certifications**

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified
- RoHS compliant

Other Certifications**Mil-Spec Test**

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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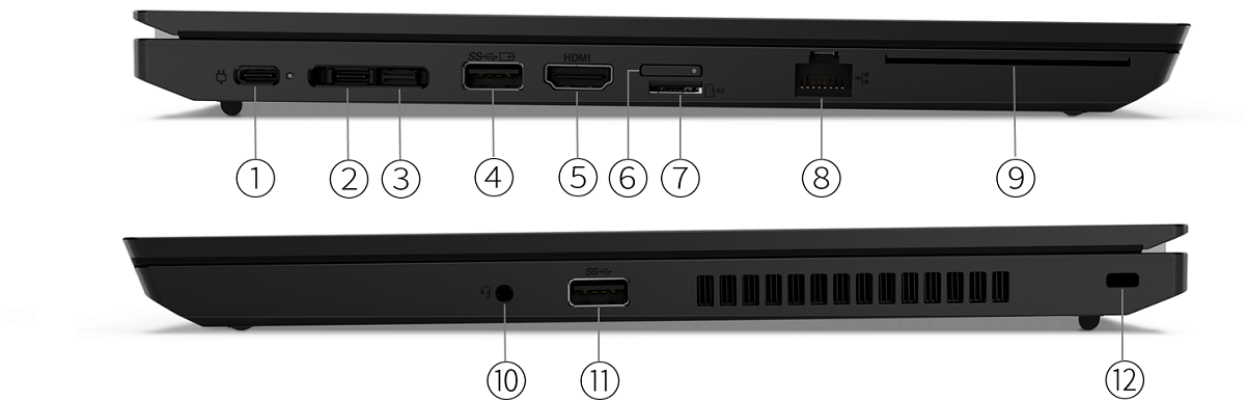


intel



intel

OVERVIEW



1. USB-C 3.2 Gen 1	7. MicroSD card reader
2. USB-C 3.2 Gen 2	8. Ethernet (RJ-45)
3. Side docking connector	9. Smart card reader *
4. USB 3.2 Gen 1 (Always On)	10. Headphone / microphone combo jack (3.5mm)
5. HDMI 2.0	11. USB 3.2 Gen 1
6. Nano-SIM card slot *	12. Kensington Security Slot

- Notes:
- Ports with * are only available on selected models
 - The combination of 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 5400U	4	8	2.6GHz	4.0GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 3 PRO 5450U	4	8	2.6GHz	4.0GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 5600U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5850U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4096x2160@60Hz
- USB-C supports up to 5120x3200@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 512GB M.2 2242 SSD or 1TB M.2 2280 SSD

Storage Type^{**}

Disk Type	Interface	RPM	Offering	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-	-
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	-	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 10.6 hr

JEITA 2.0: 13.6 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^{**[1][2]}

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

- Notes:
- 1. AC adapter offerings depend on the country.
 - 2. No power adapter is for special bid only
45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

- Notes:
- 1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical[1]

Dimensions (WxDxH)

366.5 x 250 x 21 mm (14.43 x 9.84 x 0.83 inches)

Weight

Starting at 1.99 kg (4.39 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

- Notes:
- 1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Realtek RTL8111HN (non-DASH models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Realtek RTL8111EPV (DASH models), 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®^{[1][2]}**

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Qualcomm® QCNFA765, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country-level restrictions.
Wi-Fi 6E is only available on Windows 11.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 2.0 and DisplayPort™ 1.4)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 2.0 and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® L15 Gen 2 \(AMD\)](#)

Monitor Cable**Monitor Cable*****

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

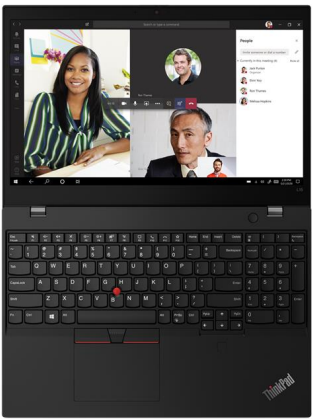
Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

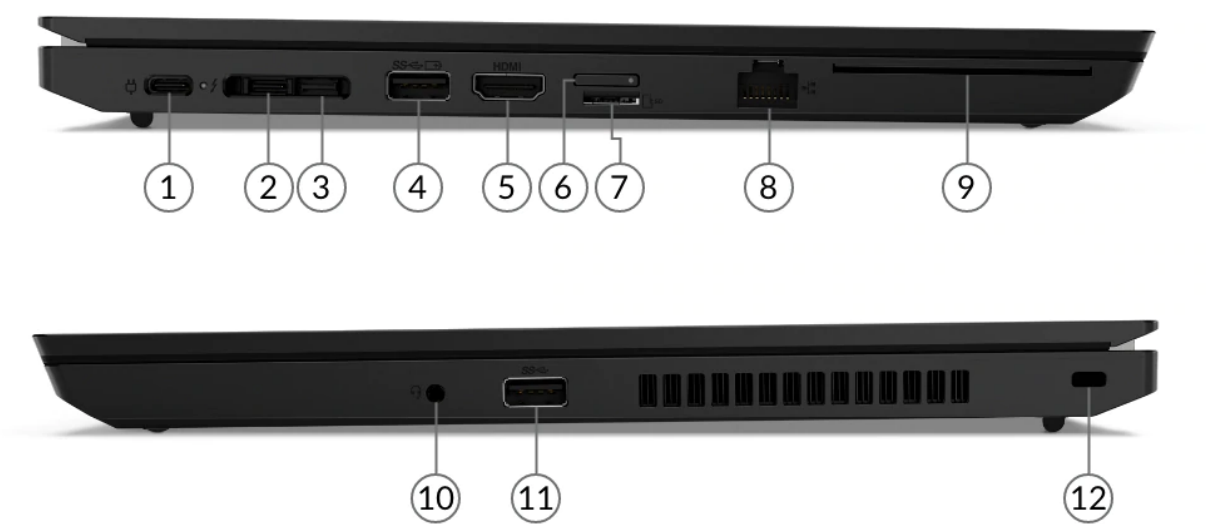


AMD



AMD

OVERVIEW



1. USB-C 3.2 Gen 1	7. MicroSD card reader
2. Thunderbolt 4	8. Ethernet (RJ-45) *
3. Side docking connector *	9. Smart card reader *
4. USB 3.2 Gen 1 (Always On)	10. Headphone / microphone combo jack (3.5mm)
5. HDMI 2.0	11. USB 3.2 Gen 1
6. Nano-SIM card slot *	12. Kensington Security Slot

- Notes:
- Ports with * are only available on selected models
 - The combination of 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

Intel® Celeron® or 11th Generation Intel Core™ i3 / i5 / i7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 6305	2	2	1.8GHz	-	4MB	DDR4-3200	Intel UHD Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	DDR4-3200	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Notes:

1. Intel Celeron processor is NOT available in EMEA

Operating System

Operating System**[1]

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise LTSC
- Linux
- Ubuntu Linux
- No operating system

Notes:

1. Windows 10 IoT Enterprise LTSC is for special bid only

Graphics

Graphics**[1]

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12.1
NVIDIA® GeForce MX450	Discrete	2GB GDDR6	DirectX 12

Notes:

1. Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual-channel memory. On the system with Intel Core i5 or i7 processor and single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics
NVIDIA GeForce MX450 is NOT available in EMEA

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI®, USB-C® and Thunderbolt™)

- HDMI supports up to 4096x2160@60Hz
- USB-C supports up to 5120x3200@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}

- HDD/SSD mode: up to two drives, 1x 2.5" HDD + 1x M.2 SSD
 - 2.5" HDD up to 2TB
 - M.2 2242 SSD up to 512GB
- One SSD mode: one drive, 1x M.2 SSD
 - M.2 2280 SSD up to 1TB
 - M.2 2242 SSD up to 512GB

Storage Slot^[3]

- HDD/SSD mode: one 2.5" drive slot + one M.2 slot
 - One 2.5" drive slot, supports 2.5" SATA HDD
 - One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD
- One SSD mode: one M.2 slot
 - One M.2 2280 PCIe Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	APS (Active Protection System™)
2.5" SATA HDD	SATA 6Gb/s	7.2K	APS (Active Protection System)
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
- 2. HDD/SSD mode is NOT available in EMEA
- 3. System has one HDD slot or one M.2 2280 slot exclusively for storage

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone^[1]

- Dual array microphone
- No microphone

Camera**[2]

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

Notes:

1. No microphone is for special bid only.
2. No camera is for special bid only.

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 7.53 hr
JEITA 2.0: 11.255 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**[1][2]

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only
45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

366.5 x 250 x 21 mm (14.43 x 9.84 x 0.83 inches)

Weight

Starting at 1.98 kg (4.37 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), 1x RJ-45, supports Wake-on-LAN
- No Ethernet

WLAN + Bluetooth®**^{[1][2]}

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1

- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***[2]

- 1x Ethernet (RJ-45)
- 1x Side docking connector
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s
2. For the models without Ethernet connector, it is recommended to use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.

Docking

Docking

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® L15 Gen 2 \(Intel\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password (for NVMe SSD)
- Hard disk password (for HDD)
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

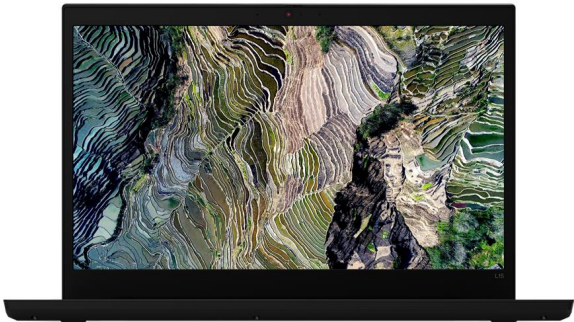
MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.

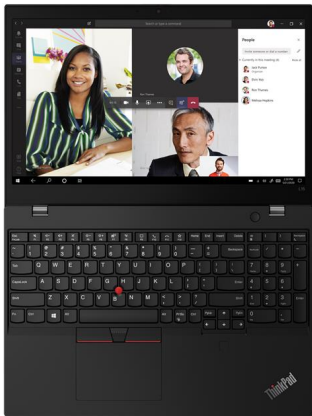
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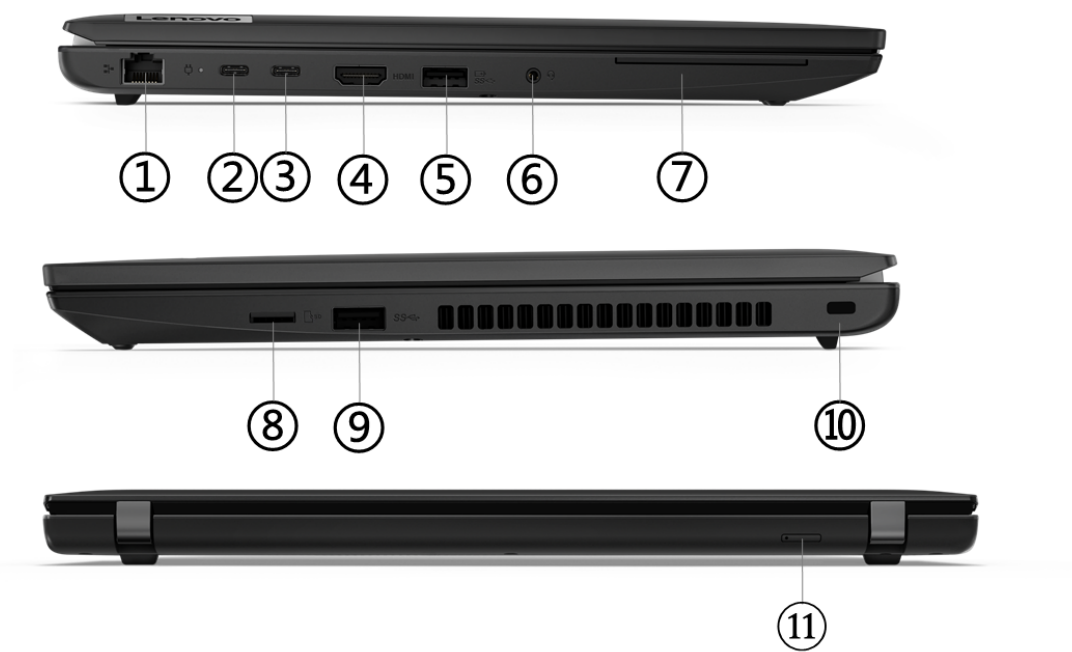


intel



intel

OVERVIEW



1. Ethernet (RJ-45)	7. Smart card reader *
2. USB-C 3.2 Gen 1	8. MicroSD card reader
3. USB-C 3.2 Gen 2	9. USB 3.2 Gen 1
4. HDMI	10. Kensington Nano Security Slot
5. USB 3.2 Gen 1 (Always On)	11. Nano-SIM card slot (WWAN model) *
6. Headphone / microphone combo jack (3.5mm)	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 5425U	4	8	2.7GHz	4.1GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 3 PRO 5475U	4	8	2.7GHz	4.1GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 5625U	6	12	2.3GHz	4.3GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5675U	6	12	2.3GHz	4.3GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5825U	8	16	2.0GHz	4.5GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5875U	8	16	2.0GHz	4.5GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Notes:

1. AMD Ryzen 3 5425U, Ryzen 5 5625U, and Ryzen 7 5825U are for special bid in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	TGP	Key Features
AMD Radeon Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 3840x2160@60Hz
- USB-C supports up to 5120x3200@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2242 SSD

Storage Slot

One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD

Storage Type^[2]

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
- 2. The SSD with PCI 4.0x4 is downgraded to closer to PCIe 3.0x4 due to AMD platform limitation.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, far-field, Dolby Voice

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus

Battery

Battery**

- Integrated Li-Polymer 42Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
- Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 11.1 hr with 721 performance score @200nits
JEITA 2.0: up to 14.7 hr @150nits
Local video playback: up to 13.3 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 10.2 hr with 661 performance score @200nits
JEITA 2.0: up to 13.4 hr @150nits
Local video playback: up to 13.1 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 9.5 hr with 619 performance score @200nits
JEITA 2.0: up to 12.6 hr @150nits

Local video playback: up to 12.9 hr @150nits

Notes:

- 1. Configuration 1 (max battery life): FHD (touch), AMD Ryzen 7 PRO 5875U, 8GB DDR4, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 2: FHD (touch), AMD Ryzen 5 PRO 5675U, 32GB DDR4, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 3: FHD (touch), AMD Ryzen 3 PRO 5475U, 64GB DDR4, Win 11, 57Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 2025](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**[1][2]

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

- 1. AC adapter offerings depend on the country.
- 2. No power adapter is for special bid only.
In EMEA only 65W USB-C AC adapter is available.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

- 1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 56 x 115 mm (2.24 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

360.2 x 237 x 19.93 mm (14.18 x 9.33 x 0.78 inches)

Weight

Starting at 1.76 kg (3.87 lbs)

Case Color

Thunder black

Case Material

PC + ABS (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^{**}

- Gigabit Ethernet, Realtek RTL8111HN (non-DASH models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Realtek RTL8111EPV (DASH models), 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth^{®**[1][2]}

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Qualcomm® QCNFA765, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

WWAN^{**}

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

No SIM card inbox

NFC^[3]

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
Qualcomm QCNFA765 is NOT available in EMEA.
3. NFC is for special bid in EMEA.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0, and DisplayPort 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{***}

- 1x Smart card reader

- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® L15 Gen 3 \(AMD\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to DP Monitor Adapter
- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL**Sustainability****Material**

50% PCC recycled plastic used in speaker enclosure
30% PCC recycled plastic used in the battery
95% PCC recycled plastic used in standard 65W adaptor
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment**Temperature^{[1][2]}**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS**Green Certifications****Green Certifications**

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified
- RoHS compliant

Other Certifications**Mil-Spec Test**

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

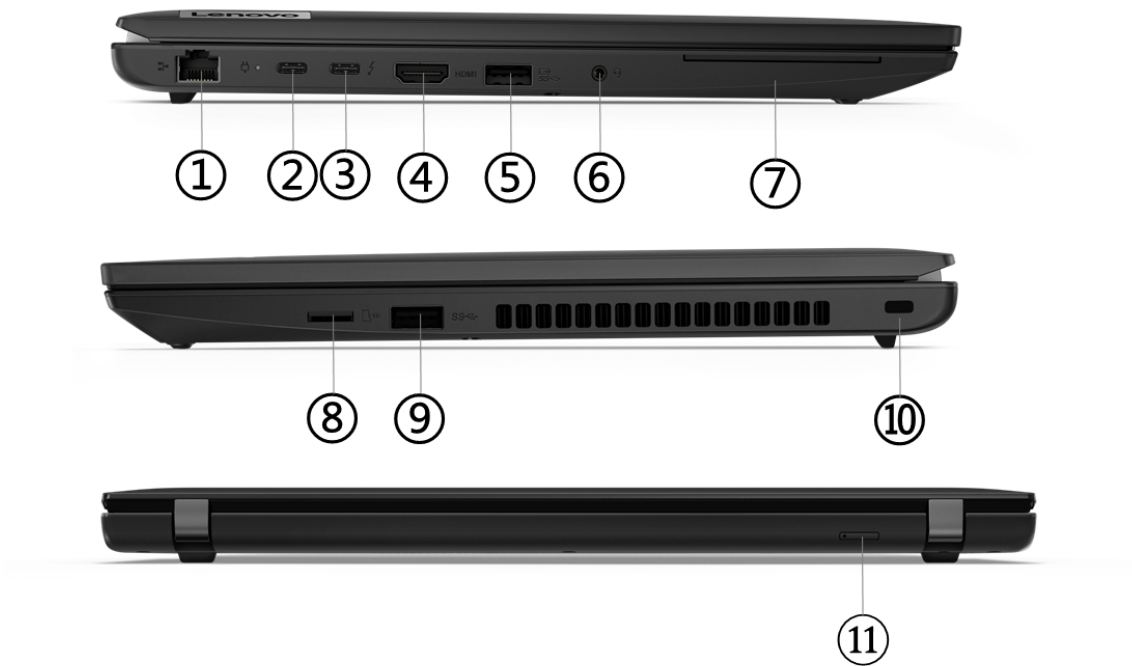


AMD



AMD

OVERVIEW



1. Ethernet (RJ-45)	7. Smart card reader *
2. USB-C 3.2 Gen 1	8. MicroSD card reader
3. Thunderbolt 4	9. USB 3.2 Gen 1
4. HDMI	10. Kensington Nano Security Slot
5. USB 3.2 Gen 1 (Always On)	11. Nano-SIM card slot *
6. Headphone / microphone combo jack (3.5mm)	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Pentium® or 12th Generation Intel Core™ i3 / i5 / i7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Pentium 8505	5 (1 P-core + 4 E-core)	6	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	8MB	DDR4-3200	Intel UHD Graphics
Core i3-1215U	6 (2 P-core + 4 E-core)	8	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	10MB	DDR4-3200	Intel UHD Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1245U	10 (2 P-core + 8 E-core)	12	P-core 1.6GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1265U	10 (2 P-core + 8 E-core)	12	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i5-1250P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	DDR4-3200	Intel Iris Xe Graphics

Notes:

1. i5-1240p, i5-1250p, and i7-1260p are for special bid only in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	TGP	Key Features
Intel UHD Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX 12.1

Notes:

1. Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual-channel memory. On the system with Intel Core i5 or i7 processor and single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.

NVIDIA® GeForce MX550 is Not available in EMEA.

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI®, USB-C® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz

- USB-C supports up to 5120x3200@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset
Intel SoC (System on Chip) platform

Memory

Max Memory^[1]
Up to 64GB DDR4-3200

Memory Slots
Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type
DDR4-3200

Notes:
1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]
One drive, up to 1TB M.2 2242 SSD

Storage Slot
One M.2 2242 PCIe® Gen 4x4 slot, supports M.2 2242 SSD

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2

Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical
None

Card Reader
MicroSD card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers
Stereo speakers, 2W x2, Dolby® Audio™

Microphone
Dual array microphone, far-field, Dolby Voice

- Camera**
- HD 720p, with privacy shutter, fixed focus
 - FHD 1080p, with privacy shutter, fixed focus
 - IR & FHD 1080p hybrid, with privacy shutter, fixed focus

Battery

- Battery**
- Integrated Li-Polymer 42Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
 - Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 11.1 hr with 825 performance score @200nits
JEITA 2.0: up to 16.2 hr @150nits
Local video playback: up to 16.3 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 9.6 hr with 1009 performance score @200nits
JEITA 2.0: up to 12.3 hr @150nits
Local video playback: up to 12.7 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 6.2 hr with 998 performance score @200nits
JEITA 2.0: up to 9.4 hr @150nits
Local video playback: up to 9.4 hr @150nits

Notes:

1. Configuration 1 (max battery life): FHD (touch), Intel i3-1215U, 4GB DDR4, Win 10, 57Wh battery, best power efficiency power mode
Alternate configuration 2: FHD (non-touch), Intel i5-1250P, 16GB DDR4, Win 10, 57Wh battery, best power efficiency power mode
Alternate configuration 3: FHD (touch), Intel i7-1260P, 64GB DDR4, Win 10, 42Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 2025](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

- Power Adapter^{**[1][2]}
- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.
45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA.

DESIGN

Display

Display^{**[1]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°

- Touchscreen
- Capacitive-type on-cell multi-touch, supports 10-point touch
 - Non-touch

Notes:

1. California Electronic Waste Recycling Fee

In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 56 x 115 mm (2.24 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

360.2 x 237 x 19.93 mm (14.18 x 9.33 x 0.78 inches)

Weight

Starting at 1.76 kg (3.87 lbs)

Case Color

Thunder black

Case Material

PC + ABS (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**^{[1][2]}

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Qualcomm® QCNFA725, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm QCNFA765, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

WWAN**^[3]

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

No SIM card inbox

NFC^[4]

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
Qualcomm QCNFA725 and Qualcomm QCNFA765 are NOT available in EMEA.
3. CAT16 is NOT available in EMEA.
4. NFC is for special bid in EMEA.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;

USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;

USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;

USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;

Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® L15 Gen 3 \(Intel\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to DP Monitor Adapter
- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management**^[1]

- Intel vPro Enterprise
- Intel vPro Essentials
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

50% PCC recycled plastic used in speaker enclosure
25-30% PCC recycled plastic used in the battery
95% PCC recycled plastic used in standard 65W adaptor
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^{[1][2]}

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
2. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3

- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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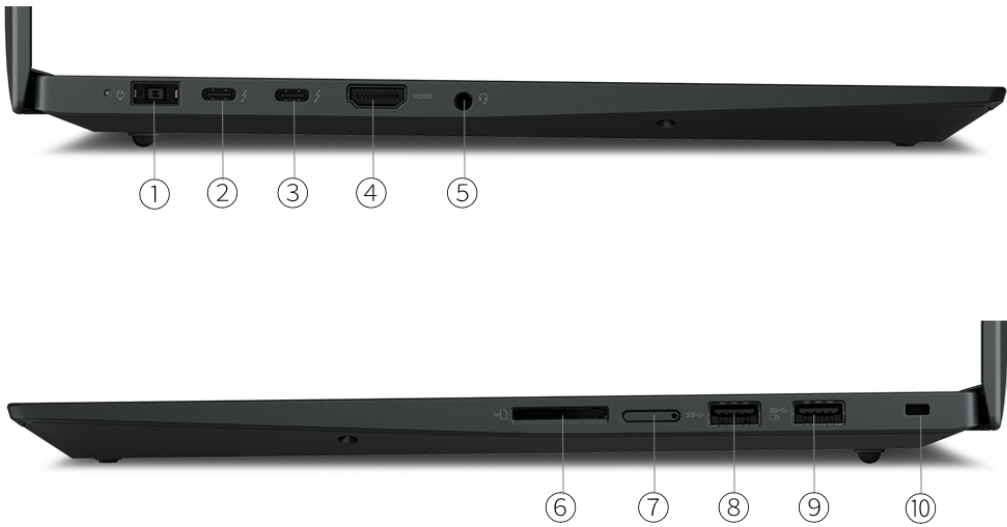


intel



intel

OVERVIEW



1. Power connector	6. SD card reader
2. Thunderbolt 4	7. Nano-SIM card slot
3. Thunderbolt 4	8. USB 3.2 Gen 1
4. HDMI	9. USB 3.2 Gen 1 (Always On)
5. Headphone (3.5mm)	10. Kensington Security Slot

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i7 / i9 or Intel Xeon® Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i7-11800H	8	16	2.3GHz	4.6GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i7-11850H	8	16	2.5GHz	4.8GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i9-11950H	8	16	2.6GHz	5.0GHz	24MB	DDR4-3200	Intel UHD Graphics
Xeon W-11855M	6	12	3.2GHz	4.9GHz	18MB	DDR4-3200	Intel UHD Graphics

Operating System

Operating System**[1]

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Windows 10 Home 64
- Fedora Linux
- Ubuntu Linux LTS
- Red Hat Enterprise Linux (certified only)
- No operating system

Notes:

1. As preloaded OS, Fedora and Ubuntu Linux will be available in October 2021

Graphics

Graphics**[1]

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce RTX™ 3080 Laptop GPU	Discrete	16GB GDDR6	Resizable BAR, Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A4000 Laptop GPU	Discrete	8GB GDDR6	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A5000 Laptop GPU	Discrete	16GB GDDR6	Dynamic Boost 2.0, DirectX 12
NVIDIA GeForce RTX 3070 Laptop GPU	Discrete	8GB GDDR6	Resizable BAR, Dynamic Boost 2.0, DirectX 12
NVIDIA T1200 Laptop GPU	Discrete	4GB GDDR6	DirectX 12
NVIDIA RTX A2000 Laptop GPU	Discrete	4GB GDDR6	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A3000 Laptop GPU	Discrete	6GB GDDR6	Dynamic Boost 2.0, DirectX 12

Notes:

1. Vapor Chamber cooling is available only with NV RTX A3000 /A4000 / A5000 and GeForce RTX 3070 / 3080 GPUs

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 4K@60Hz on NVIDIA T1200 or Intel UHD model, or 8K@60Hz on other discrete graphics model
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel WM590 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type**

- DDR4-3200 ECC
- DDR4-3200 non-ECC

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}

- One drive, up to 2TB M.2 2280 SSD
- Model with Intel UHD Graphics, NVIDIA T1200, and NVIDIA RTX A2000 Graphics:
up to two drives, 2x M.2 SSD
 - M.2 2280 SSD up to 2TB
 - RAID 0/1 support

Storage Slot^[3]

Two M.2 slots

- One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2280 SSD
- One M.2 2280 PCIe Gen 4x4 slot, supports M.2 2280 SSD

Storage Type***

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	256GB / 512GB / 1TB	Opal2

RAID^[4]

RAID 0/1 support (All M.2 SSD drives will work at PCIe Gen 3 in RAID mode)

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. Dual storage is only available on models with Intel UHD graphics, NVIDIA T1200, and NVIDIA RTX A2000
3. M.2 PCIe Gen 4 SSD in a M.2 PCIe Gen 3 slot runs at PCIe Gen 3 speeds
4. Opal capability is not available in RAID mode.

Removable Storage

Optical

None

Card Reader

SD card reader, supports UHS-II SD card

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, Dolby® Atmos®

Microphone

- Dual array microphone, far-field
- No microphone

Camera**

- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 90Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life^[1]

MobileMark® 2018: 10.9 hr
JEITA 2.0: 13.7 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^[1]

- 135W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

- AC adapter offerings depend on the country.

DESIGN

Display

Display**^{[1][2]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
16.0"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Low blue light, DC dimming
16.0"	WQUXGA (3840x2400)	None	IPS	600 nits	Anti-glare	16:10	1500:1	100% Adobe® RGB	170°	Low blue light, Dolby Vision™, DisplayHDR™ 400, DC dimming
16.0"	WQUXGA (3840x2400)	Multi-touch	IPS	600 nits	Anti-reflection, Anti-smudge	16:10	1500:1	100% Adobe RGB	170°	Low blue light, Dolby Vision, DisplayHDR 400, DC dimming

Color Calibration

- X-Rite® Pantone® factory color calibration
- No color calibration

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- For non-OLED display, HDR is only supported under hybrid mode.

Input Device

Pen

- Lenovo Pen Pro
- No pen (pen sold separately)
- No support (non-touch display doesn't support pen input)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

3-button TrackPoint® pointing device and glass surface multi-touch touchpad, 67.6 x 115 mm (2.66 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Touch models	359.5 x 253.8 x 18.2 mm (14.15 x 9.99 x 0.72 inches)
Non-touch models	359.5 x 253.8 x 17.7 mm (14.15 x 9.99 x 0.7 inches)

Weight

Models	Weight
Non-touch models	1.81 kg (3.99 lbs)
Touch models	1.86 kg (4.1 lbs)

Case Color**

- Black
- 37-degree twill CF weave

Case Material**

- CFRP / GFRP (top), Aluminium (bottom)
- CFRP / GFRP hybrid (top), Aluminium (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Ethernet support via optional Lenovo USB-C® to Ethernet Adapter
- USB-C to GbE RJ-45 Dongle

WLAN + Bluetooth®^{[1][2]}

Intel Wi-Fi® 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN^[3]

- Qualcomm® Snapdragon™ X55 5G Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Nano SIM Card, Lenovo Connect 24 months, 4G LTE
- No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the

regional regulatory certifications & spectrum allocation.

3. WWAN is only available on models with Intel UHD graphics, NVIDIA T1200, and NVIDIA RTX A2000.

Ports^[1]

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x SD card reader
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{***}

- 1x Nano-SIM card slot (WWAN support models)
- 1x HDMI 2.0 (model with integrated graphics)
- 1x HDMI 2.0 (model with NVIDIA T1200 graphics)
- 1x HDMI 2.1 (model with GeForce RTX graphics)
- 1x HDMI 2.1 (model with NVIDIA RTX graphics)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;

USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;

USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;

USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;

Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® P1 Gen 4](#)

Monitor Cable

Monitor Cable^{***}

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip^{**}

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

(Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

ISV Certifications

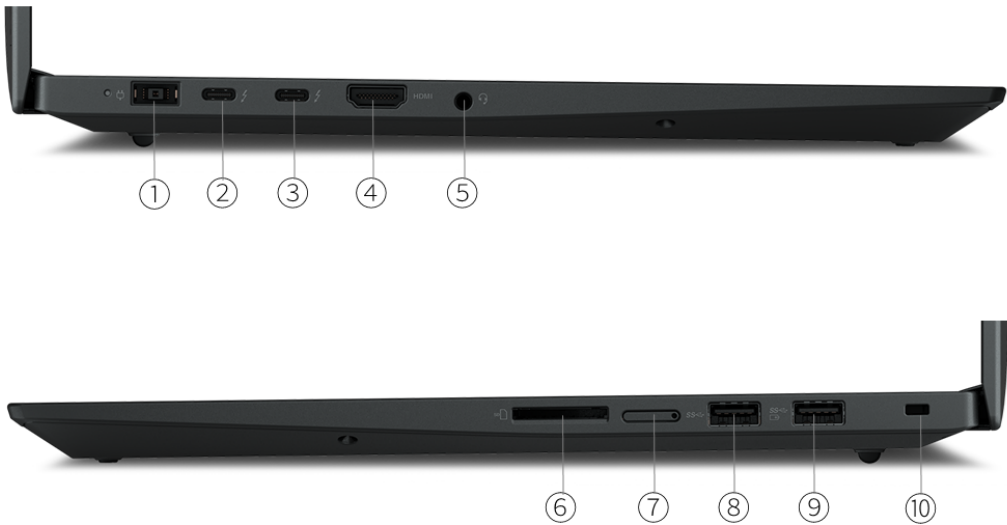
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Power connector	6. SD Express 7.0 card reader
2. Thunderbolt 4	7. Nano-SIM card slot *
3. Thunderbolt 4	8. USB 3.2 Gen 1
4. HDMI	9. USB 3.2 Gen 1 (Always On)
5. Headphone (3.5mm)	10. Kensington Nano Security Slot

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation H series Intel® Core™ i7 / i9 processor, supports processors up to 14 cores; up to 5.0 GHz; up to 45W TDP

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i7-12700H	14 (6 P-core + 8 E-core)	20	P-core 2.3GHz / E-core 1.7GHz	P-core 4.7GHz / E-core 3.5GHz	24MB	DDR5-4800	Intel Iris® Xe Graphics
Core i7-12800H	14 (6 P-core + 8 E-core)	20	P-core 2.4GHz / E-core 1.8GHz	P-core 4.8GHz / E-core 3.7GHz	24MB	DDR5-4800	Intel Iris Xe Graphics
Core i9-12900H	14 (6 P-core + 8 E-core)	20	P-core 2.5GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	24MB	DDR5-4800	Intel Iris Xe Graphics

Operating System

Operating System

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Fedora Linux
- Ubuntu Linux
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Graphics^[1]

Graphics	Type	Memory	TGP	Key Features
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12.1
NVIDIA® GeForce RTX™ 3070 Ti Laptop GPU	Discrete	8GB GDDR6	80W	Resizable BAR, Dynamic Boost 2.0, VR ready, DirectX 12
NVIDIA GeForce RTX 3080 Ti Laptop GPU	Discrete	16GB GDDR6	80W	Resizable BAR, Dynamic Boost 2.0, VR ready, DirectX 12
NVIDIA RTX A1000 Laptop GPU	Discrete	4GB GDDR6	35W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A2000 8GB Laptop GPU	Discrete	8GB GDDR6	35W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A3000 12 GB Laptop GPU	Discrete	12GB GDDR6 ECC	80W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A4500 Laptop GPU	Discrete	16GB GDDR6 ECC	80W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A5500 Laptop GPU	Discrete	16GB GDDR6 ECC	80W	Dynamic Boost 2.0, DirectX 12

Notes:

- Intel Iris Xe Graphics requires dual-channel memory. On models with single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.
Vapor Chamber cooling is available only with NV RTX A3000 /A4500 / A5500 and GeForce RTX 3070 / 3080 GPUs.

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz on Intel Iris Xe models; 7680x4320@60Hz on discrete NVIDIA graphics models
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset
Intel SoC (System on Chip) platform

Memory

Max Memory^[1]
Up to 64GB DDR5-4800

Memory Slots
Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type
DDR5-4800 non-ECC

Notes:
1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

- Models with Intel Iris Xe or NVIDIA RTX A1000/A2000: up to two drives, 2x M.2 SSD
 - M.2 2280 SSD up to 8TB, 4TB each
 - RAID 0/1 support
- Models with NVIDIA GeForce/RTX A3000/A4500/A5500: one drive, up to 4TB M.2 2280 SSD

Storage Slot

- Models with NVIDIA GeForce/RTX A3000/A4500/A5500: one M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2280 SSD
- Models with Intel Iris Xe or NVIDIA RTX A1000/A2000: two M.2 2280 PCIe Gen 4x4 slots, supports M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB / 4TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	256GB / 512GB / 1TB	Opal2

RAID

- RAID 0/1 support (for models with Intel Iris Xe or NVIDIA RTX A1000/A2000)
- No support

Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Card Reader
SD Express 7.0 card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers
Stereo speakers, 2W x2, optimized with Dolby® Atmos®

Microphone
Dual array microphone, far-field, Dolby Voice

Camera**

- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 90Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Power Adapter

Power Adapter**[1]

- 135W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
16.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1200:1	100% sRGB	178°	Low Blue Light, X-Rite® Pantone® Factory Color Calibration, DC dimming
16.0"	WQXGA (2560x1600)	None	IPS	500 nits	Anti-glare	16:10	1200:1	100% sRGB	178°	X-Rite Pantone Factory Color Calibration, 165Hz, Low blue light, DC dimming
16.0"	WQUXGA (3840x2400)	None	IPS	600 nits	Anti-glare	16:10	1500:1	100% Adobe® RGB	170°	X-Rite Pantone Factory Color Calibration, Low blue light, Dolby Vision™, DisplayHDR™ 400, DC dimming
16.0"	WQUXGA (3840x2400)	Multi-touch	IPS	600 nits	Anti-reflection, Anti-smudge	16:10	1500:1	100% Adobe RGB	170°	X-Rite Pantone Factory Color Calibration, Low blue light, Dolby Vision, DisplayHDR 400, DC dimming

Color Calibration

X-Rite Pantone factory color calibration

Touchscreen

- OGM multi-touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Pen

- Lenovo Precision Pen 2 with built-in rechargeable battery, 4096 levels of pressure sensitivity, tilt detection, supports WGP, AES 2.0 and MPP 2.0 protocols
- No pen (pen sold separately)
- No support (non-touch display doesn't support pen input)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

3-button TrackPoint® pointing device and glass surface multi-touch touchpad, 67.6 x 115 mm (2.66 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Touch models	359.5 x 253.8 x 18.2 mm (14.15 x 9.99 x 0.72 inches)
Non-touch models	359.5 x 253.8 x 17.7 mm (14.15 x 9.99 x 0.7 inches)

Weight

Models	Weight
Non-touch models	1.81 kg (3.99 lbs)
Touch models	1.86 kg (4.1 lbs)

Case Color**

- Black
- 37-degree twill CF weave

Case Material**

- CFRP / GFRP (top), Aluminium (bottom)
- CFRP / GFRP hybrid (top), Aluminium (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Ethernet support via optional Lenovo USB-C® to Ethernet Adapter
- USB-C to GbE RJ-45 Dongle
- USB-C to 2.5GbE RJ-45 Dongle

WLAN + Bluetooth^[1]

Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN

- Fibocom FM350-GL 5G NR module with embedded eSIM functionality, M.2 Card
- No support

SIM Card

No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Standard Ports

- Models with NVIDIA graphics: 1x HDMI, up to 8K/60Hz
- Models with integrated graphics: 1x HDMI, up to 4K/60Hz
- 2x USB 3.2 Gen 1 (one Always On)

- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector
- 1x SD Express 7.0 card reader

Optional Ports

- 1x GbE RJ-45, via USB-C to RJ-45 dongle
- 1x 2.5GbE RJ-45, via USB-C to RJ-45 dongle
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® P1 Gen 5](#)

Monitor Cable**Monitor Cable**

- (Optional) Lenovo USB-C to DisplayPort Adapter
- (Optional) Lenovo HDMI to VGA Monitor Adapter
- (Optional) Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip****

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY**System Management****System Management^[1]**

- Intel vPro Enterprise
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

Low-temperature solder

90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

TÜV Rheinland® Low Blue Light

ISV Certifications

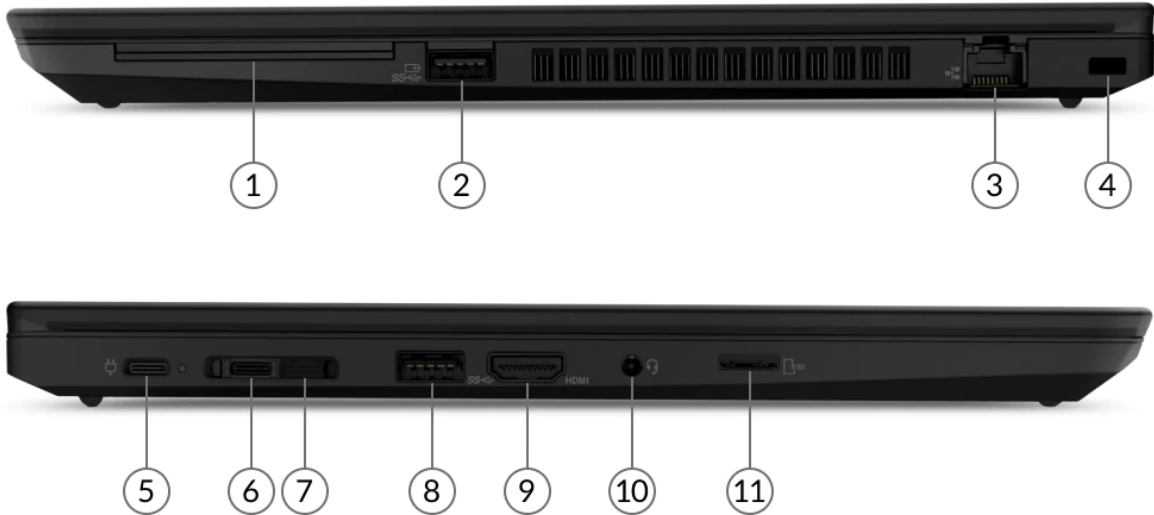
ISV Certifications

Please visit [ISV certifications for Lenovo Workstations](#)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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- The specifications on this page may not be available in all regions, and may be changed or updated without notice.



OVERVIEW



1. Smart card reader *	7. Side docking connector
2. USB 3.2 Gen 1 (Always On)	8. USB 3.2 Gen 1
3. Ethernet (RJ-45)	9. HDMI 2.0
4. Kensington Security Slot	10. Headphone / microphone combo jack (3.5mm)
5. USB-C 3.2 Gen 2	11. MicroSD card reader
6. USB-C 3.2 Gen 2	

- Notes:
- Ports with * are only available on selected models
 - Optional nano-SIM card slot on the rear side (not shown on the sample product above)
 - The combination of 5, 6, and 7 is side docking connector

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 5 PRO 5650U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 7 PRO 5850U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Connector	Max Resolution	Key Features	Remark
AMD Radeon Graphics	Integrated	Shared	-	-	DirectX® 12	-

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4096x2160@60Hz
- USB-C supports up to 5120x2880@60Hz, DP mode via USB-C to DP dongle

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200 non-ECC

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type**

Disk Type	Interface	RPM	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x4	-	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	-	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, near-field
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 12.5 hr
JEITA 2.0: 15.8 hr (idle, 150 nits)

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	DC dimming
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	DC dimming
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard, DC dimming
14.0"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1500:1	100% DCI-P3	170°	Dolby Vision™, DisplayHDR™ 400, DC dimming, X-Rite® FCC

Color Calibration

- X-Rite Pantone® factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
FHD Low Power / Privacy Guard models	1.46 kg (3.22 lbs)
FHD touch models	1.55 kg (3.41 lbs)
HD / FHD non-touch models	1.55 kg (3.41 lbs)
UHD models	1.46 kg (3.23 lbs)

Case Color**

- Black
- Storm grey

Case Material**

- Aluminium (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)
- PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111H, supports Wake-on-LAN

WLAN + Bluetooth[®] ^{[1][2]}

- Wi-Fi[®] 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Intel[®] Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm[®] QCNFA765, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

WWAN^{**}

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Intel AX200 and Mediatek MT7921 are for special bid only.
Intel Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 2x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports^{***}

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via side docking connector, Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad P14s Gen 2 \(AMD\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

System Management

AMD Pro Manageability

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 2438 m (8,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

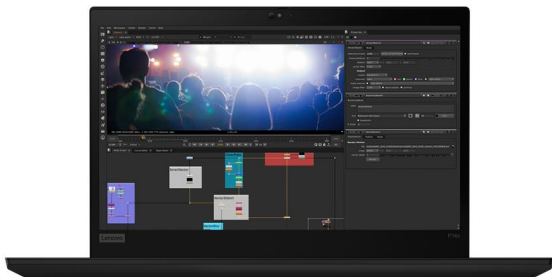
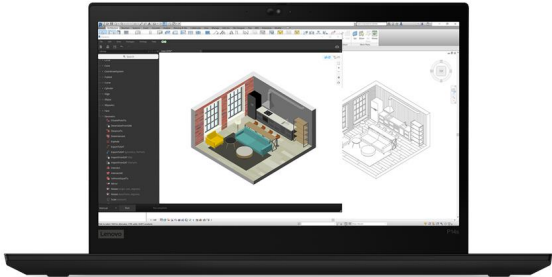
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ISV Certifications

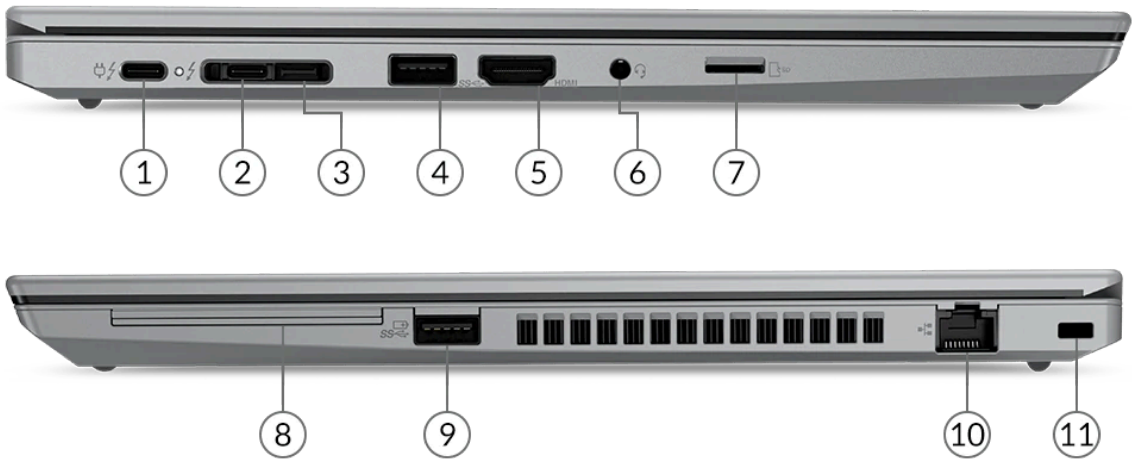
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Thunderbolt 4	7. MicroSD card reader
2. Thunderbolt 4	8. Smart card reader *
3. Side docking connector *	9. USB 3.2 Gen 1 (Always On)
4. USB 3.2 Gen 1	10. Ethernet (RJ-45) *
5. HDMI 2.0	11. Kensington Security Slot
6. Headphone / microphone combo jack (3.5mm)	

- Notes:
- Ports with * are only available on selected models
 - Optional nano-SIM card slot on the rear side (not shown on the sample product above)
 - The combination of 1, 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Ubuntu Linux LTS
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Graphics**[]

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12.1
NVIDIA® T500 Laptop GPU	Discrete	4GB GDDR6	DirectX 12

Notes:

1. Intel Iris Xe Graphics requires dual-channel memory. On models with single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.

Monitor Support

Monitor Support[]

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 4K@60Hz
- Thunderbolt supports up to 5K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory[]

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200 non-ECC

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot^[2]

One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type^{**[3]}

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	-	Opal2

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. M.2 PCIe Gen 4 SSD in a M.2 PCIe Gen 3 slot runs at PCIe Gen 3 speeds
3. System comes with one M.2 SSD slot that supports PCIe 3.0

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, far-field

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 9.7 hr

JEITA 2.0: 16 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**[1]

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	DC dimming
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	DC dimming
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard, DC dimming
14.0"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1500:1	100% DCI-P3	170°	Dolby Vision™, DisplayHDR™ 400, DC dimming, X-Rite® FCC

Color Calibration

- X-Rite Pantone® factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
--------	------------

Aluminium models	329.4 x 227.5 x 17.9 mm (12.97 x 8.96 x 0.70 inches)
PC + ABS models	329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
Aluminium models	1.502 kg (3.31 lbs)
PC + ABS models	1.469 kg (3.24 lbs)

Case Color**

- Black
- Storm grey

Case Material**

- Aluminium (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)
- PC + ABS (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), supports Wake-on-LAN
- No Ethernet (Using optional ethernet adapter or dock)

WLAN + Bluetooth®**^{[1][2]}

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- Quectel EM160R, 4G LTE CAT16, MIMO 4x4, M.2 card, with embedded eSIM functionality
- No support

SIM Card**

- eSIM
- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Ethernet (RJ-45)
- 1x Side docking connector
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via side docking connector (optional), Thunderbolt or USB-C.
For more compatible docking solutions, please visit [Docking for ThinkPad P14s Gen 2 \(Intel\)](#)

Monitor Cable**Monitor Cable*****

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip****

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY**System Management****System Management^[1]**

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified Notebooks 8
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

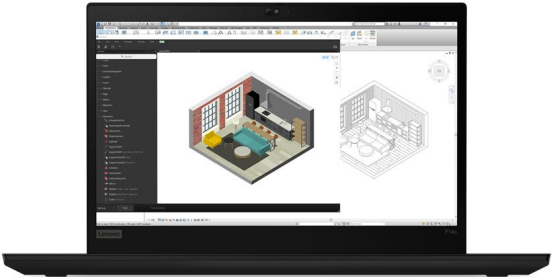
ISV Certifications

ISV Certifications

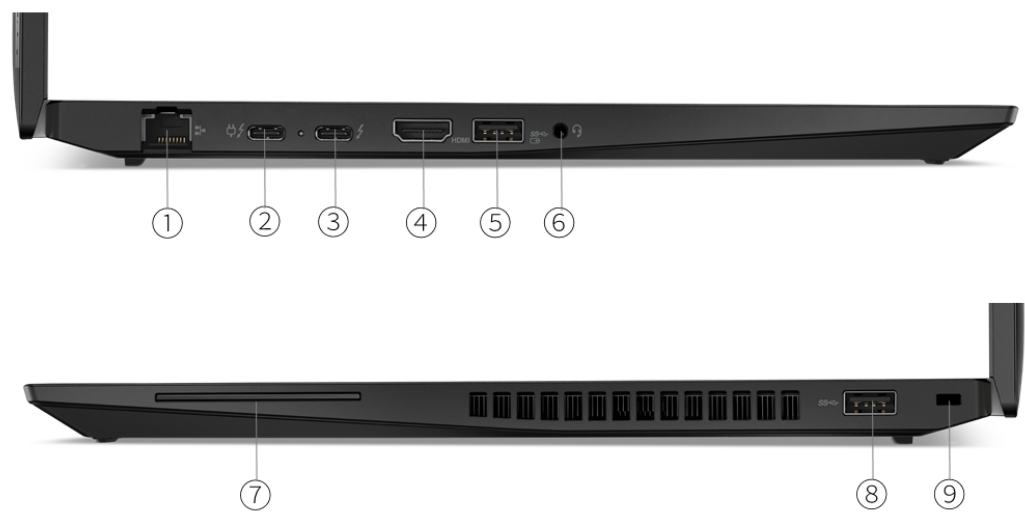
Please visit www.thinkworkstations.com/isv-certifications/

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OVERVIEW



1. Ethernet (RJ-45)	6. Headphone / microphone combo jack (3.5mm)
2. Thunderbolt 4	7. Smart card reader *
3. Thunderbolt 4	8. USB 3.2 Gen 1
4. HDMI 2.1 TMDs	9. Security keyhole
5. USB 3.2 Gen 1 (one Always On)	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation P series Intel® Core™ i5 / i7 processor, supports processors up to 14 cores; up to 4.8 GHz; up to 28W TDP

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1250P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1270P	12 (4 P-core + 8 E-core)	16	P-core 2.2GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.5GHz	18MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1280P	14 (6 P-core + 8 E-core)	20	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	24MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- Red Hat Enterprise Linux (certified only)

Graphics

Graphics**

Graphics	Type	Memory	Boost Clock	TGP	Connector	Max Resolution	Key Features	Remark
Intel Iris Xe Graphics	Integrated	Shared	-	Share CPU TDP	-	-	DirectX® 12.1	-
Integrated Intel Iris Xe Graphics functions as UHD Graphics	Integrated	Shared	-	Share CPU TDP	-	-	DirectX 12	-
NVIDIA® T550 Laptop GPU	Discrete	4GB GDDR6	-	30W	-	-	DirectX 12	-

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz
- Thunderbolt supports up to 7680x4320@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200 non-ECC

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2280 SSD

Storage Type**

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	256GB / 512GB / 1TB	Opal2

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, Dolby® Audio™

Microphone

- Dual array microphone, Dolby Voice
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery**

- Integrated Li-Polymer 39.3Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Integrated Li-Polymer 52.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Power Adapter

Power Adapter**^[1]

- 65W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 100W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	800:1	45% NTSC	170°	DC dimming
14.0"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	ICC Template color calibration, Low Blue Light, TÜV Eye Comfort, DC dimming
14.0"	WUXGA (1920x1200)	Multi-Touch	IPS	300 nits	Anti-glare	16:10	800:1	45% NTSC	170°	DC dimming
14.0"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	ThinkPad® Privacy Guard, DC dimming
14.0"	2.2K (2240x1400)	None	IPS	300 nits	Anti-glare	16:10	1500:1	100% sRGB	170°	Low Blue Light, TÜV Eye Comfort, DC dimming
14.0"	WQUXGA (3840x2400)	Add On Film Touch	IPS	500 nits	AR (anti-reflection) / AS (anti-smudge)	16:10	1500:1	100% DCI-P3	170°	Dolby Vision™, HDR400, X-Rite® Pantone® Factory Color Calibration (ΔE<2), Low Blue Light, TÜV Eye Comfort, DC dimming

Color Calibration**

- X-Rite Pantone factory color calibration (WQUXGA display)
- ICC Template color calibration (selected WUXGA display)
- No color calibration

Touchscreen**

- Add-on Film Touch, supports 10-point touch
- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

3-button TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 61 x 115 mm (2.4 x 4.53 inches)

Mechanical[1]

Dimensions (WxDxH)

Models	Dimensions
Model with black cover and integrated graphics	317.7 x 226.9 x 17.9 mm (12.51 x 8.93 x 0.705 inches)
Model with black cover and NVIDIA T550 graphics	317.7 x 226.9 x 17.95 mm (12.51 x 8.93 x 0.707 inches)
Model with gery cover	317.7 x 227.36 x 17.9 mm (12.51 x 8.951 x 0.705 inches)

Weight

Models	Weight
Model with black cover	Starting at 1.24 kg (2.73 lbs)
Model with grey cover	Starting at 1.26 kg (2.78 lbs)

Case Color**[2]

- Black
- Storm grey

Case Material**

- Model with black cover and NVIDIA T550 graphics: PC 50% GF + PC 20% CF (top), Aluminium (bottom)
- Model with black cover and integrated graphics: PC 50% GF + PC 20% CF (top), PPS (bottom)
- Model with grey cover: Aluminium (top), PPS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Storm grey case will be available in in the middle of May.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), supports Wake-on-LAN

WLAN + Bluetooth®**[1]

- Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® NFA-725A Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports[1]

Standard Ports

- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 2.0)
- 2x USB 3.2 Gen 1 (one Always On)
- 1x HDMI 2.1 TMDS
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Security keyhole

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
 - USB 2.0: 480 Mbit/s;
 - USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
 - USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
 - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
 - Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad P14s Gen 3](#)

Monitor Cable

Monitor Cable**

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

97% PCC recycled plastic used in speaker enclosure
97% PCC recycled plastic used in the battery
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) TÜV Rheinland® Eye Comfort Certification
- (Optional) TÜV Rheinland Low Blue Light

ISV Certifications

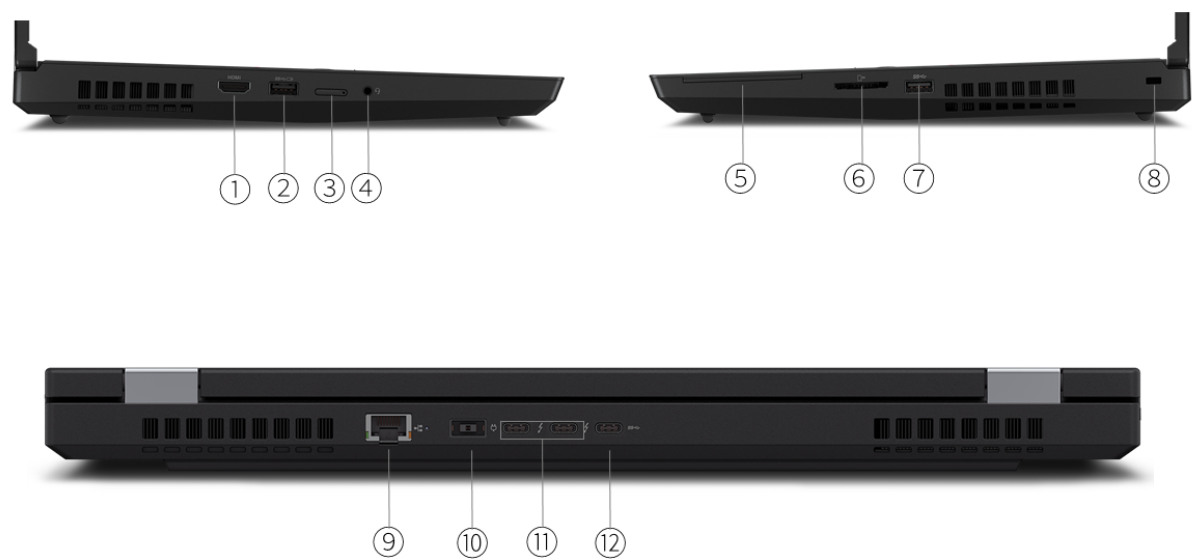
ISV Certifications

Please visit [ISV certifications for Lenovo Workstations](#)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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OVERVIEW



1. HDMI 2.1 / 2.0	7. USB 3.2 Gen 1
2. USB 3.2 Gen 1 (Always On)	8. Kensington Security Slot
3. Nano-SIM card slot *	9. 2.5GbE (RJ-45)
4. Headphone / microphone combo jack (3.5mm)	10. Power connector
5. Smart card reader *	11. 2x Thunderbolt 4
6. SD card reader	12. USB-C 3.2 Gen 2

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 / i9 or Intel Xeon® Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-11500H	6	12	2.9GHz	4.6GHz	12MB	DDR4-3200	Intel UHD Graphics
Core i7-11800H	8	16	2.3GHz	4.6GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i7-11850H	8	16	2.5GHz	4.8GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i9-11950H	8	16	2.6GHz	5.0GHz	24MB	DDR4-3200	Intel UHD Graphics
Xeon W-11855M	6	12	3.2GHz	4.9GHz	18MB	DDR4-3200	Intel UHD Graphics
Xeon W-11955M	8	16	2.6GHz	5.0GHz	24MB	DDR4-3200	Intel UHD Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Pro 64 for Workstations
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Windows 10 Home 64
- Fedora Linux
- Ubuntu Linux LTS
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	TGP	Key Features
NVIDIA® RTX A4000 Laptop GPU	Discrete	8GB GDDR6	90W	Dynamic Boost 2.0, DirectX® 12
NVIDIA RTX A5000 Laptop GPU	Discrete	16GB GDDR6	90W	Dynamic Boost 2.0, DirectX 12
NVIDIA T1200 Laptop GPU	Discrete	4GB GDDR6	60W	DirectX 12
NVIDIA RTX A2000 Laptop GPU	Discrete	4GB GDDR6	60W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A3000 Laptop GPU	Discrete	6GB GDDR6	90W	Dynamic Boost 2.0, DirectX 12

Monitor Support

Monitor Support

Supports up to 5 independent displays (native display and 4 external monitors via HDMI®, USB-C®, or Thunderbolt™) on hybrid mode only

- HDMI supports up to 4K@60Hz on NVIDIA T1200, 8K@60Hz on other discrete graphics
- USB-C up to 5120x3200@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel WM590 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-3200

Memory Slots

Four DDR4 SO-DIMM slots, dual-channel capable

Memory Type**

- DDR4-3200 ECC
- DDR4-3200 non-ECC

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to three drives, 3x M.2 SSD

- M.2 2280 SSD up to 2TB

Storage Slot^[2]

Three M.2 slots

- Two M.2 2280 PCIe® Gen 3x4 slots, support M.2 2280 SSD
- One M.2 2280 PCIe Gen 4x4 slot, supports M.2 2280 SSD

Storage Type***

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	256GB / 512GB / 1TB	Opal2

RAID^[3]

RAID 0/1 support on two M.2 PCIe Gen 3x4 slots

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. M.2 PCIe Gen 4 SSD in a M.2 PCIe Gen 3 slot runs at PCIe Gen 3 speeds
3. Opal capability is not available in RAID mode.

Removable Storage

Optical

None

Card Reader

SD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, Dolby® Atmos®

Microphone

- Dual array microphone, far-field
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 94Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life^[1]

MobileMark® 2018: 9 hr
JEITA 2.0: 11.5 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^{**[1]}

- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display^{**[1][2]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	100% sRGB	170°	-
15.6"	FHD (1920x1080)	None	IPS	500 nits	Anti-glare	16:9	1200:1	100% sRGB	170°	Dolby Vision™
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1200:1	100% Adobe® RGB	170°	Dolby Vision, DisplayHDR™ 400
15.6"	UHD (3840x2160)	Multi-touch	OLED	SDR 400nits, HDR 500nits (peak)	Anti-reflection Anti-smudge	16:9	100000:1	100% DCI-P3	170°	Dolby Vision, HDR 500 True Black

Color Calibration

- X-Rite® Pantone® factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

2. For non-OLED display, HDR is only supported under hybrid mode.

Input Device

Pen

- Lenovo Pen Pro
- No pen (pen sold separately)
- No support (non-touch display doesn't support pen input)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

LED backlight

UltraNav™

3-button TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Touch models	375.4 x 252.3 x 25.25-32.2 mm (14.24 x 9.67 x 0.99-1.27 inches)
Non-touch models	375.4 x 252.3 x 24.5-31.45 mm (14.24 x 9.67 x 0.96-1.24 inches)

Weight

Models	Weight
Non-touch models	2.87 kg (6.32 lbs)
Touch models	3.07 kg (6.75 lbs)

Case Color

Black

Case Material

PPS / 50% GF (top), PA / 50% GF (bottom)

Notes:

- 1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- 2.5GbE, Intel Ethernet Connection I225-LM (vPro models), supports Wake-on-LAN
- 2.5GbE, Intel Ethernet Connection I225-V (non-vPro models), supports Wake-on-LAN

WLAN + Bluetooth^{[1][2]}

- Intel Wi-Fi® 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM160R, 4G LTE CAT16, MIMO 4x4, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

- 1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
- 2. Wi-Fi 6 full features might be limited by country-level restrictions.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4a)
- 1x SD card reader
- 1x Ethernet (2.5GbE RJ-45)

- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)
- 1x HDMI 2.0 (model with NVIDIA T1200 graphics)
- 1x HDMI 2.1 (model with NVIDIA RTX graphics)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® P15 Gen 2](#)

Monitor Cable**Monitor Cable*****

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip****

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY**System Management****System Management^[1]**

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

ISV Certifications

ISV Certifications

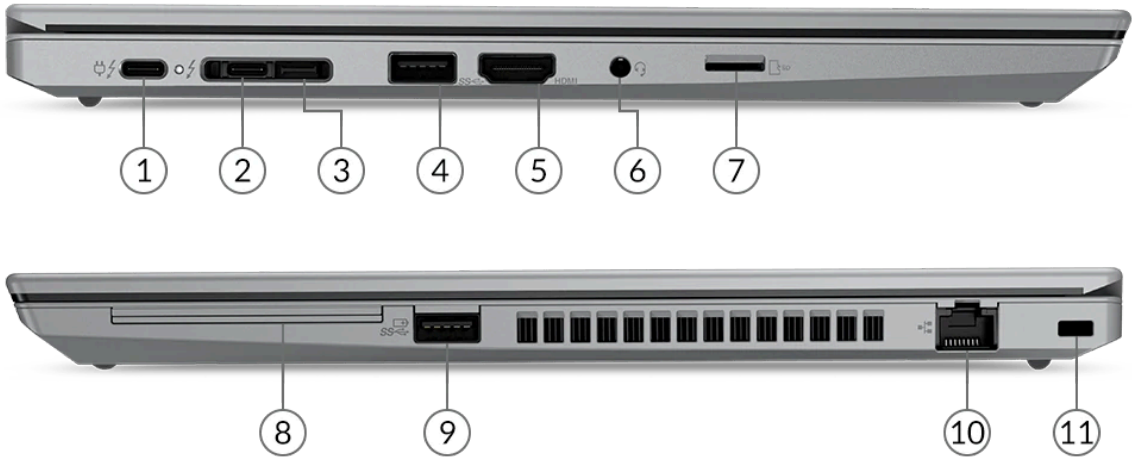
Please visit www.thinkworkstations.com/isv-certifications/

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.

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- The specifications on this page may not be available in all regions, and may be changed or updated without notice.



OVERVIEW



1. Thunderbolt 4	7. MicroSD card reader
2. Thunderbolt 4	8. Smart card reader *
3. Side docking connector *	9. USB 3.2 Gen 1 (Always On)
4. USB 3.2 Gen 1	10. Ethernet (RJ-45) *
5. HDMI 2.0	11. Kensington Security Slot
6. Headphone / microphone combo jack (3.5mm)	

- Notes:
- Ports with * are only available on selected models
 - Optional nano-SIM card slot on the rear side (not shown on the sample product above)
 - The combination of 1, 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Ubuntu Linux LTS
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Graphics**[]

Graphics	Type	Memory	TGP	Key Features
Intel UHD Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX 12.1
NVIDIA® T500 Laptop GPU	Discrete	4GB GDDR6	18W	DirectX 12

Notes:

1. Intel Iris Xe Graphics requires dual-channel memory. On models with single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.

Monitor Support

Monitor Support[]

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 4K@60Hz
- Thunderbolt supports up to 5K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory[]

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200 non-ECC

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot^[2]

One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type^{**[3]}

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	-	Opal2

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. M.2 PCIe Gen 4 SSD in a M.2 PCIe Gen 3 slot runs at PCIe Gen 3 speeds
3. System comes with one M.2 SSD slot that supports PCIe 3.0

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 9.3 hr

JEITA 2.0: 15.8 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	170°	Dolby Vision™, DisplayHDR™ 400, DC dimming

Color Calibration

- X-Rite® Pantone® factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

365.8 x 248 x 19.1 mm (14.40 x 9.76 x 0.75 inches)

Weight

Models	Weight
Aluminium models	1.783 kg (3.93 lbs)

PC + ABS models	1.75 kg (3.86 lbs)
-----------------	--------------------

Case Color**

- Black
- Storm grey

Case Material**

- Aluminium (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)
- PC + ABS (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), supports Wake-on-LAN
- No Ethernet (Using optional ethernet adapter or dock)

WLAN + Bluetooth®^{[1][2]}**

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- Quectel EM160R, 4G LTE CAT16, MIMO 4x4, M.2 card, with embedded eSIM functionality
- No support

SIM Card**

- eSIM
- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Ethernet (RJ-45)
- 1x Side docking connector
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via side docking connector (optional), Thunderbolt or USB-C.
For more compatible docking solutions, please visit [Docking for ThinkPad® P15s Gen 2](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified Notebooks 8
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

ISV Certifications

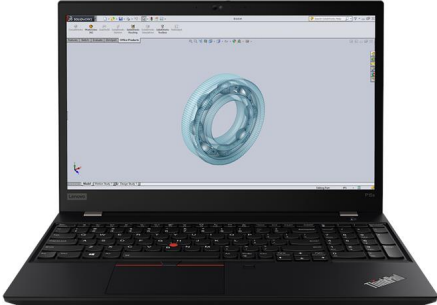
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	6. Kensington Security Slot
2. SD card reader	7. Power connector
3. HDMI 2.0	8. Thunderbolt 4
4. 2x USB 3.2 Gen 1	9. Smart card reader *
5. Ethernet (RJ-45)	

- Notes:
- Ports with * are only available on selected models
 - Nano-SIM card slot on the rear side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-11400H	6	12	2.7GHz	4.5GHz	12MB	DDR4-3200	Intel UHD Graphics
Core i7-11800H	8	16	2.3GHz	4.6GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i7-11850H	8	16	2.5GHz	4.8GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i9-11950H	8	16	2.6GHz	5.0GHz	24MB	DDR4-3200	Intel UHD Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Ubuntu Linux LTS
- Red Hat Enterprise Linux (certified only)

Graphics

Graphics**

Graphics	Type	Memory	TGP
Intel UHD Graphics	Integrated	Shared	Share CPU TDP
NVIDIA® T600 Laptop GPU	Discrete	4GB GDDR6	25W
NVIDIA T1200 Laptop GPU	Discrete	4GB GDDR6	35W
NVIDIA RTX A2000 Laptop GPU	Discrete	4GB GDDR6	35W

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 4K@60Hz
- Thunderbolt supports up to 5K@60Hz

Chipset

Chipset

Intel WM590 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200 non-ECC

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 2x M.2 SSD

- M.2 2280 SSD up to 2TB

Storage Slot^[2]

Two M.2 slots

- Two M.2 2280 PCIe® Gen 3x4 slots, support M.2 2280 SSD

Storage Type***

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 3.0	-	256GB / 512GB / 1TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	2TB	Opal2

RAID^[3]

RAID 0/1 support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. M.2 PCIe Gen 4 SSD in a M.2 PCIe Gen 3 slot runs at PCIe Gen 3 speeds
3. Opal capability is not available in RAID mode.

Removable Storage

Optical

None

Card Reader

SD card reader, supports UHS-II SD card

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, near-field
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 68Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life^[1]

MobileMark® 2018: 7.5 hr
JEITA 2.0: 9.5 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^[1]

135W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°	-
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	170°	Dolby Vision™, DisplayHDR™ 400, optional X-Rite® Pantone® Factory Color Calibration, DC dimming

Color Calibration

- X-Rite Pantone factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch (FHD models only)
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

3-button TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical[1]

Dimensions (WxDxH)

366.5 x 250 x 22.7 mm (14.43 x 9.84 x 0.89 inches)

Weight

2.07 kg (4.56 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), supports Wake-on-LAN

WLAN + Bluetooth®^{[1][2]}

Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x SD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
 - USB 2.0: 480 Mbit/s;
 - USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
 - USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
 - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
 - Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt or USB-C®.

For more compatible docking solutions, please visit [Docking for ThinkPad® P15v Gen 2](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)

- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

ISV Certifications

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

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- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	6. Kensington Security Slot
2. SD card reader	7. Power connector
3. HDMI	8. Thunderbolt 4
4. 2x USB 3.2 Gen 1	9. Smart card reader *
5. Ethernet (RJ-45)	

- Notes:
- Ports with * are only available on selected models
 - Nano-SIM card slot on the rear side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

12th Generation H series Intel® Core™ i5 / i7 / i9 processor, supports processors up to 14 cores; up to 5 GHz

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-12500H	12 (4 P-core + 8 E-core)	16	P-core 2.5GHz / E-core 1.8GHz	P-core 4.5GHz / E-core 3.3GHz	18MB	DDR5-4800	Intel Iris® Xe Graphics
Core i7-12700H	14 (6 P-core + 8 E-core)	20	P-core 2.3GHz / E-core 1.7GHz	P-core 4.7GHz / E-core 3.5GHz	24MB	DDR5-4800	Intel Iris Xe Graphics
Core i7-12800H	14 (6 P-core + 8 E-core)	20	P-core 2.4GHz / E-core 1.8GHz	P-core 4.8GHz / E-core 3.7GHz	24MB	DDR5-4800	Intel Iris Xe Graphics
Core i9-12900H	14 (6 P-core + 8 E-core)	20	P-core 2.5GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	24MB	DDR5-4800	Intel Iris Xe Graphics

Operating System

Operating System

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Graphics^[1]

Graphics	Type	Memory	TGP	Key Features
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12.1
NVIDIA® T600 Laptop GPU	Discrete	4GB GDDR6	35W	DirectX 12
NVIDIA T1200 Laptop GPU	Discrete	4GB GDDR6	35W	DirectX 12
NVIDIA RTX A2000 Laptop GPU	Discrete	4GB GDDR6	35W	Dynamic Boost 2.0, DirectX 12

Notes:

1. Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual-channel memory. On the system with Intel Core i5 or i7 processor and single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz
- Thunderbolt supports up to 5120x3200@60Hz (Thunderbolt or USB-C® to DP)

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 64GB DDR5-4800

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type

DDR5-4800 non-ECC

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

- Up to two drives, 2x M.2 SSD
- M.2 2280 SSD up to 4TB, 2TB each
 - RAID 0/1 support

Storage Slot

- Two M.2 slots
- Two M.2 2280 PCIe® Gen 4x4 slots, support M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	256GB / 512GB / 1TB	Opal2

RAID

RAID 0/1 support

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

SD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

- Dual array microphone, far-field, Dolby Voice
- No microphone

Camera**

- IR & HD 720p hybrid, with privacy shutter, fixed focus
- Front HD 720p, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 68Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Power Adapter

Power Adapter^[1]

- 135W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- No power adapter

Notes:

- 1. AC adapter offerings depend on the country.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°	DC dimming
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	170°	Dolby Vision™, DisplayHDR™ 400, optional X-Rite® Pantone® Factory Color Calibration, DC dimming

Color Calibration

- X-Rite Pantone factory color calibration (selected UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch (FHD models only)
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

3-button TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

366.5 x 250 x 22.7 mm (14.43 x 9.84 x 0.89 inches)

Weight

Models	Weight
Model with integrated graphics	Starting at 2.096 kg (4.62 lbs)
Model with discrete graphics	Starting at 2.226 kg (4.91 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), supports Wake-on-LAN

WLAN + Bluetooth®**^[1]

- Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® NFA-725A Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, MIMO 4x4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x SD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt, USB-C, or USB-A.

For more compatible docking solutions, please visit [Docking for ThinkPad® P15v Gen 3 \(Intel\)](#)

Monitor Cable

Monitor Cable

- (Optional) Lenovo USB-C to DisplayPort Adapter
- (Optional) Lenovo HDMI to VGA Monitor Adapter
- (Optional) Lenovo USB-C to VGA Adapter

SECURITY & PRIVACY

Security

Security Chip**

ThinkPad P15v Gen 3 (Intel)

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management**^[1]

- Intel vPro Enterprise
- Intel vPro Essentials
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)

- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

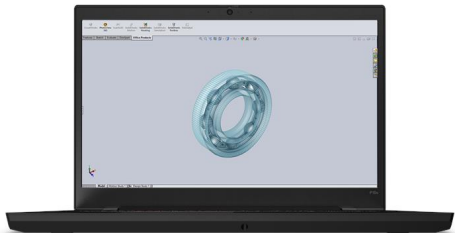
MIL-STD-810H military test passed

ISV Certifications

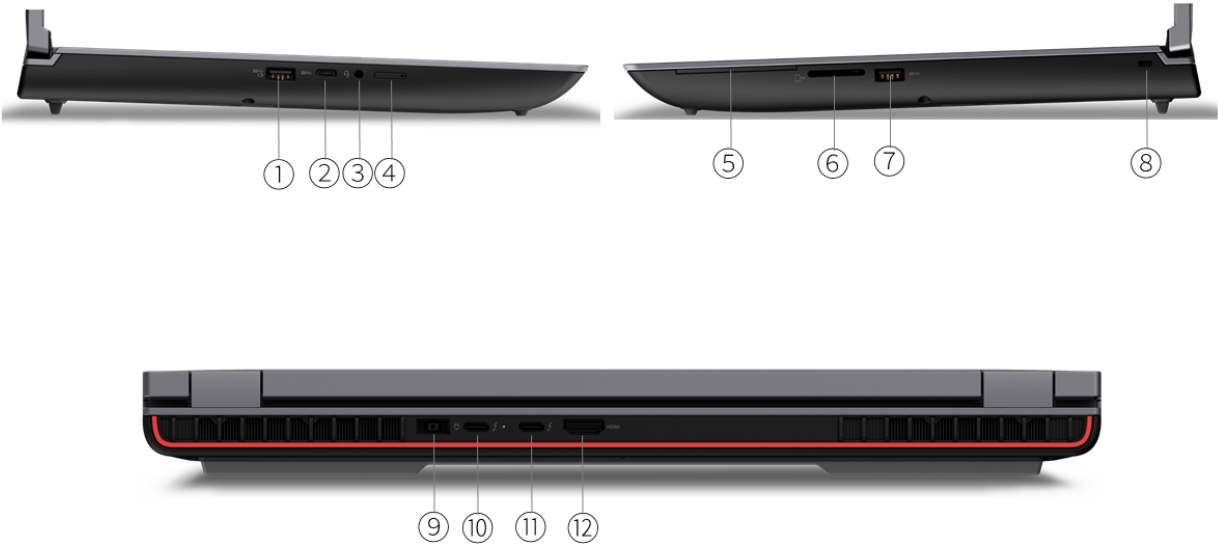
ISV Certifications

Please visit [ISV certifications for Lenovo Workstations](#)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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- The specifications on this page may not be available in all regions, and may be changed or updated without notice.



OVERVIEW



1. USB 3.2 Gen 1 (one Always On)	7. USB 3.2 Gen 1
2. USB-C 3.2 Gen 2	8. Kensington Nano Security Slot
3. Headphone / microphone combo jack (3.5mm)	9. Power connector
4. Nano-SIM card slot *	10. Thunderbolt 4
5. Smart card reader *	11. Thunderbolt 4
6. SD Express 7.0 card reader	12. HDMI

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation HX series Intel® Core™ i5 / i7 / i9 processor, supports processors up to 16 cores; up to 5.0 GHz; up to 55W TDP

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-12600HX	12 (4 P-core + 8 E-core)	16	P-core 2.5GHz / E-core 1.8GHz	P-core 4.6GHz / E-core 3.3GHz	18MB	DDR5-4800	Intel UHD Graphics
Core i7-12850HX	16 (8 P-core + 8 E-core)	24	P-core 2.1GHz / E-core 1.5GHz	P-core 4.8GHz / E-core 3.4GHz	25MB	DDR5-4800	Intel UHD Graphics
Core i9-12950HX	16 (8 P-core + 8 E-core)	24	P-core 2.3GHz / E-core 1.7GHz	P-core 5.0GHz / E-core 3.6GHz	30MB	DDR5-4800	Intel UHD Graphics
Core i7-12800HX	16 (8 P-core + 8 E-core)	24	P-core 2.0GHz / E-core 1.5GHz	P-core 4.8GHz / E-core 3.4GHz	25MB	DDR5-4800	Intel UHD Graphics
Core i9-12900HX	16 (8 P-core + 8 E-core)	24	P-core 2.3GHz / E-core 1.7GHz	P-core 5.0GHz / E-core 3.6GHz	30MB	DDR5-4800	Intel UHD Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Fedora Linux
- Ubuntu Linux
- Red Hat Enterprise Linux (certified only)

Graphics

Graphics

Graphics	Type	Memory	TGP	Key Features
Intel UHD Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12.1
NVIDIA® RTX A1000 Laptop GPU	Discrete	4GB GDDR6	60W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A2000 8GB Laptop GPU	Discrete	8GB GDDR6	60W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A3000 12GB Laptop GPU	Discrete	12GB GDDR6 ECC	115W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A4500 Laptop GPU	Discrete	16GB GDDR6 ECC	115W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A5500 Laptop GPU	Discrete	16GB GDDR6 ECC	115W	Dynamic Boost 2.0, DirectX 12

Monitor Support

Monitor Support

Supports up to 5 independent displays (native display and 4 external monitors via HDMI®, USB-C® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz on integrated or Arc graphics models; 7680x4320@60Hz on NVIDIA graphics models
- USB-C supports up to 5120x3200@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel WM690 chipset

Memory

Max Memory^[1]

Up to 128GB

Memory Slots

Four DDR5 SO-DIMM slots, dual-channel capable

Memory Type**[2]

- DDR5-4800 ECC
- DDR5-4800 non-ECC

Memory Protection

ECC on models with ECC DIMMs and ECC capable processor

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. Installed memory is actually DDR5-4800 but runs at DDR5-4000 due to processor limitation

Storage

Storage Support†[1]

Up to two drives, 2x M.2 SSD

- M.2 2280 SSD up to 8TB, 4TB each
- RAID 0/1 support

Storage Slot

Two M.2 slots

- Two M.2 2280 PCIe® Gen 4x4 slots, support M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB / 4TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	256GB / 512GB / 1TB	Opal2

RAID

RAID 0/1 support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

SD Express 7.0 card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2, Dolby® Atmos®

Microphone

- Dual array microphone, far-field, Dolby Voice
- No microphone

Camera**

- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 94Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 230W AC adapter

Power Adapter

Power Adapter**[1]

- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:
1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
16.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1200:1	100% sRGB	178°	Low Blue Light, X-Rite® Pantone® Factory Color Calibration, DC dimming
16.0"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Low Blue Light, X-Rite Pantone Factory Color Calibration, DC dimming
16.0"	WQUXGA (3840x2400)	None	IPS	600 nits	Anti-glare	16:10	1500:1	100% Adobe® RGB	178°	Low Blue Light, Dolby Vision™, DisplayHDR™ 400, X-Rite Pantone Factory Color Calibration, DC dimming
16.0"	WQUXGA (3840x2400)	Multi-touch	OLED	400 nits	Anti-reflection, Anti-smudge	16:10	100,000:1	100% DCI-P3	175°	Low Blue Light, Dolby Vision, HDR 500 True Black, X-Rite Pantone Factory Color Calibration, DC dimming

Color Calibration

X-Rite Pantone factory color calibration

Touchscreen

- OGM multi-touch, supports 10-point touch
- Non-touch

Notes:
1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Pen

- Lenovo Precision Pen 2 with built-in rechargeable battery, 4096 levels of pressure sensitivity, tilt detection, supports WGP, AES 2.0 and MPP 2.0 protocols
- No pen (with a pen garage ready, pen sold separately)
- No support

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

LED backlight

UltraNav™

3-button TrackPoint® pointing device and Mylar® surface multi-touch touchpad, 67.6 x 115 mm (2.66 x 4.53 inches)

Mechanical^[1]**Dimensions (WxDxH)**

364 x 266 x 30.23 mm (14.3 x 10.5 x 1.2 inches)

Weight

Starting at 2.95 kg (6.5 lbs)

Case Color

Storm grey (top), thunder black (bottom)

Case Material

AL5052 (97.25% aluminium, 2.5% magnesium, and 0.25% chromium; Top), PPS + 50% GF (Bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY**Network****Onboard Ethernet****

- Ethernet support via optional Lenovo USB-C to Ethernet Adapter
- USB-C to GbE RJ-45 Dongle
- USB-C to 2.5GbE RJ-45 Dongle

WLAN + Bluetooth^[1]

Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, MIMO 4x4, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Standard Ports**

- Models with NVIDIA graphics: 1x HDMI, up to 8K/60Hz
- Models with integrated or Intel Arc graphics: 1x HDMI, up to 4K/60Hz
- 2x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4)
- 1x SD Express 7.0 card reader

Optional Ports

- 1x GbE RJ-45, via USB-C to RJ-45 dongle
- 1x 2.5GbE RJ-45, via USB-C to RJ-45 dongle
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® P16 Gen 1](#)

Monitor Cable

Monitor Cable

- (Optional) Lenovo USB-C to DisplayPort Adapter
- (Optional) Lenovo HDMI to VGA Monitor Adapter
- (Optional) Lenovo USB-C to VGA Adapter

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management

- Intel vPro Enterprise
- Non-vPro

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service

- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

TÜV Rheinland® Low Blue Light

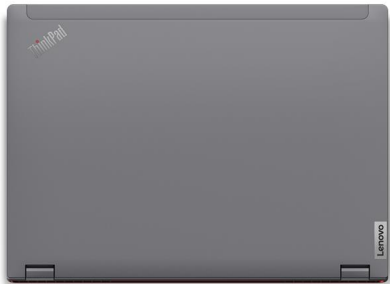
ISV Certifications

ISV Certifications

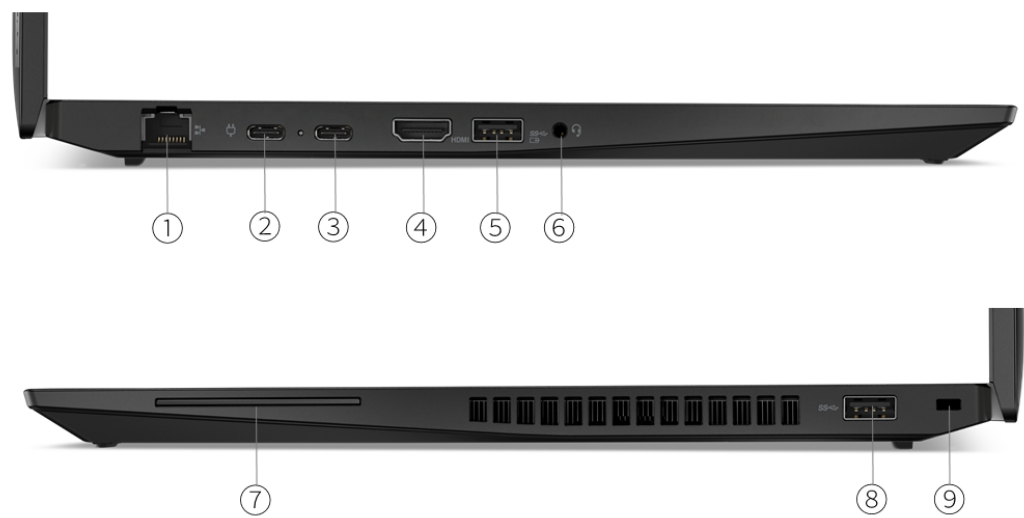
Please visit [ISV certifications for Lenovo Workstations](#)

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OVERVIEW



1. Ethernet (RJ-45)	6. Headphone / microphone combo jack (3.5mm)
2. USB-C 3.2 Gen 2	7. Smart card reader *
3. USB-C 3.2 Gen 2	8. USB 3.2 Gen 1
4. HDMI	9. Security keyhole
5. USB 3.2 Gen 1 (Always On)	

- Notes:
- Ports with * are only available on selected models
 - Two USB-C 3.2 Gen 2 ports support data transfer, Power Delivery and DisplayPort 1.4

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 PRO 6000 Series Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 5 PRO 6650U	6	12	2.9GHz	4.5GHz	3MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon™ 660M Graphics
AMD Ryzen 7 PRO 6850U	8	16	2.7GHz	4.7GHz	4MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon 680M Graphics

Operating System

Operating System^[1]

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- Red Hat Enterprise Linux (certified only)

Notes:

1. As preloaded OS, Ubuntu Linux will be available in September 2022

Graphics

Graphics**^[1]

Graphics	Type	Memory	TGP	Key Features
AMD Radeon 660M	Integrated	Shared	Share CPU TDP	DirectX® 12
AMD Radeon 680M	Integrated	Shared	Share CPU TDP	DirectX 12

Notes:

1. Integrated AMD Radeon 660M / 680 graphics use system memory as dedicated video memory, from 512MB to 8GB (8GB video memory requires system memory >= 32GB)

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 3840x2160@60Hz
- USB-C supports up to 5120x2880@120Hz (USB-C to DP)

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR5-6400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the

technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2280 SSD

Storage Type**

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery**

- Integrated Li-Polymer 52.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Integrated Li-Polymer 86Wh battery

Power Adapter

Power Adapter**^[1]

- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 100W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
16.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	800:1	45% NTSC	170°	DC dimming
16.0"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	178°	ICC Template color calibration, Low power, Low blue light, TUV Eye Comfort, DC dimming
16.0"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare	16:10	800:1	45% NTSC	170°	DC dimming
16.0"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	ThinkPad® Privacy Guard, Low Blue Light, TUV Eye Comfort, DC dimming
16.0"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Dolby Vision™, X-Rite® Pantone® Factory Color Calibration (ΔE<2), Low blue light, TUV Eye Comfort, DC dimming

Color Calibration**

- X-Rite Pantone factory color calibration (WQXGA display)
- ICC Template color calibration (selected WUXGA display)
- No color calibration

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

3-button TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 67 x 115 mm (2.64 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

361.98 x 255.5 x 20.5 mm (14.25 x 10.06 x 0.81 inches)

Weight

Models	Weight
Model with black cover	Starting at 1.734 kg (3.82 lbs)
Model with grey cover	Starting at 1.779 kg (3.92 lbs)

Case Color**^[2]

- Black
- Storm grey

Case Material**

- Model with black cover: PC 50% GF + PC 20% CF (top), PPS (bottom)
- Model with grey cover: Aluminium (top), PPS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Storm grey case will be available on September 2022

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, supports Wake-on-LAN
- Gigabit Ethernet, supports Wake-on-LAN and AMD Pro Manageability
- Gigabit Ethernet, supports Wake-on-LAN and AMD Pro Manageability + USB-C to GbE RJ-45 Dongle

WLAN + Bluetooth®^[1]**

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® NFA-725A Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Security keyhole

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad P16s Gen 1 \(AMD\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter

- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip^[1]

Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

Notes:

1. Discrete TPM 2.0 is for special bid only.

MANAGEABILITY

System Management

System Management

- AMD Pro Manageability
- Non-DASH

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

97% PCC recycled plastic used in speaker enclosure
97% PCC recycled plastic used in the 52.5Wh battery
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) TÜV Rheinland® Eye Comfort Certification
- (Optional) TÜV Rheinland Low Blue Light

ISV Certifications

ISV Certifications

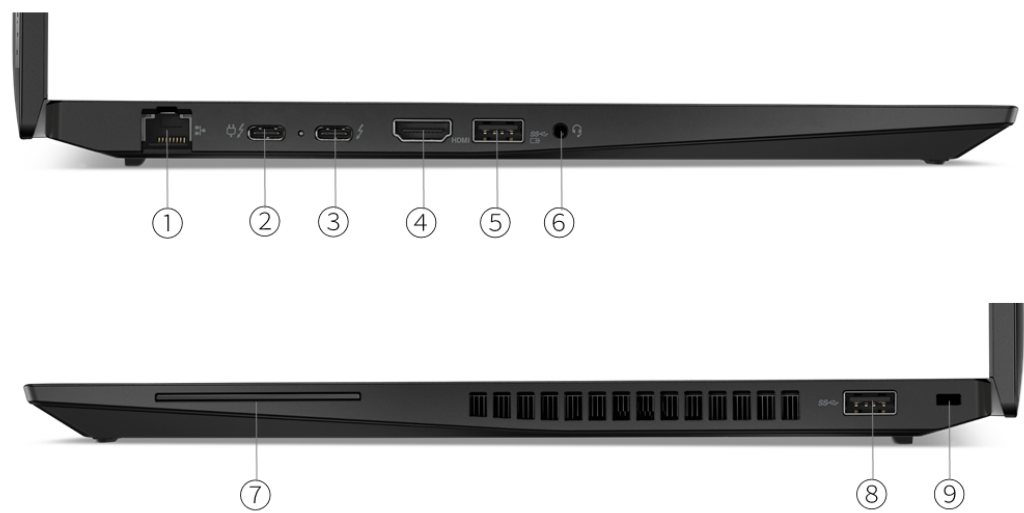
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- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Ethernet (RJ-45)	6. Headphone / microphone combo jack (3.5mm)
2. Thunderbolt 4	7. Smart card reader *
3. Thunderbolt 4	8. USB 3.2 Gen 1
4. HDMI 2.1 TMDs	9. Security keyhole
5. USB 3.2 Gen 1 (one Always On)	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation P series Intel® Core™ i5 / i7 processor, supports processors up to 14 cores; up to 4.8 GHz; up to 28W TDP

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1250P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1270P	12 (4 P-core + 8 E-core)	16	P-core 2.2GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.5GHz	18MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1280P	14 (6 P-core + 8 E-core)	20	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	24MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- Red Hat Enterprise Linux (certified only)

Graphics

Graphics**^[1]

Graphics	Type	Memory	Boost Clock	TGP	Connector	Max Resolution	Key Features	Remark
Intel Iris Xe Graphics	Integrated	Shared	-	Share CPU TDP	-	-	DirectX® 12.1	-
NVIDIA® T550 Laptop GPU	Discrete	4GB GDDR6	-	30W	-	-	DirectX 12	-

Notes:

1. Intel Iris Xe Graphics requires dual-channel memory. On models with single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz
- Thunderbolt supports up to 7680x4320@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200 non-ECC

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2280 SSD

Storage Type**

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	256GB / 512GB / 1TB	Opal2

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, Dolby® Audio™

Microphone

- Dual array microphone, Dolby Voice
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery**

- Integrated Li-Polymer 52.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Integrated Li-Polymer 86Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 135W AC adapter

Power Adapter

Power Adapter**^[1]

- 65W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 100W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 135W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

- No power adapter

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
16.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	800:1	45% NTSC	170°	DC dimming
16.0"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	178°	ICC Template color calibration, Low power, Low blue light, TUV Eye Comfort, DC dimming
16.0"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare	16:10	800:1	45% NTSC	170°	DC dimming
16.0"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	ThinkPad® Privacy Guard, Low Blue Light, TUV Eye Comfort, DC dimming
16.0"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Dolby Vision™, X-Rite® Pantone® Factory Color Calibration (ΔE<2), Low blue light, TUV Eye Comfort, DC dimming

Color Calibration**

- X-Rite Pantone factory color calibration (WQXGA display)
- ICC Template color calibration (selected WUXGA display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

3-button TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 67 x 115 mm (2.64 x 4.53 inches)

Mechanical[1]

Dimensions (WxDxH)

Models	Dimensions
Integrated graphics models	361.98 x 255.5 x 20.5 mm (14.25 x 10.06 x 0.81 inches)
NVIDIA graphics models	361.9 x 255.5 x 20.83 mm (14.25 x 10.06 x 0.82 inches)

Weight

Models	Weight
Model with grey cover	Starting at 1.683 kg (3.71 lbs)
Model with black cover	Starting at 1.677 kg (3.7 lbs)

Case Color**[2]

- Black
- Storm grey

Case Material**

- Model with black cover: PC 50% GF + PC 20% CF (top), PPS (bottom)
- Model with grey cover: Aluminium (top), PPS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Storm grey case will be available in in the middle of May.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), supports Wake-on-LAN

WLAN + Bluetooth®**[1]

- Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® NFA-725A Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, MIMO 4x4, M.2 card, with embedded eSIM functionality
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Standard Ports

- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 2.0)
- 2x USB 3.2 Gen 1 (one Always On)
- 1x HDMI, up to 4K/60Hz
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Security keyhole

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;

USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad P16s Gen 1 \(Intel\)](#)

Monitor Cable

Monitor Cable**

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service

- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

97% PCC recycled plastic used in speaker enclosure
97% PCC recycled plastic used in the 52.5Wh battery
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) TÜV Rheinland® Eye Comfort Certification
- (Optional) TÜV Rheinland Low Blue Light

ISV Certifications

ISV Certifications

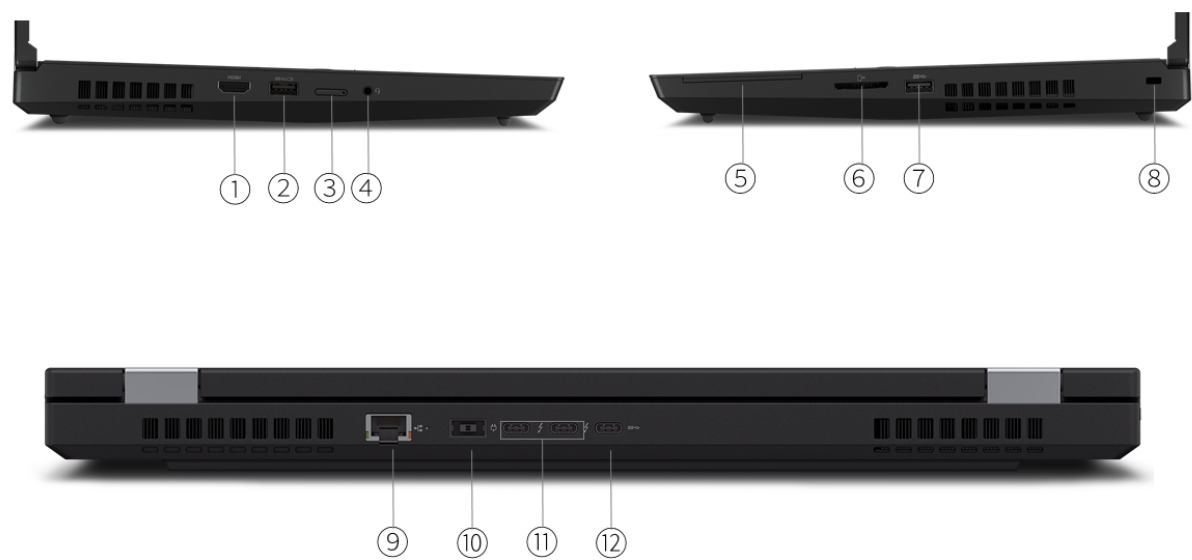
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OVERVIEW



1. HDMI 2.1 / 2.0	7. USB 3.2 Gen 1
2. USB 3.2 Gen 1 (Always On)	8. Kensington Security Slot
3. Nano-SIM card slot *	9. 2.5GbE (RJ-45)
4. Headphone / microphone combo jack (3.5mm)	10. Power connector
5. Smart card reader *	11. 2x Thunderbolt 4
6. SD card reader	12. USB-C 3.2 Gen 2

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 / i9 or Intel Xeon® Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-11500H	6	12	2.9GHz	4.6GHz	12MB	DDR4-3200	Intel UHD Graphics
Core i7-11800H	8	16	2.3GHz	4.6GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i7-11850H	8	16	2.5GHz	4.8GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i9-11950H	8	16	2.6GHz	5.0GHz	24MB	DDR4-3200	Intel UHD Graphics
Xeon W-11855M	6	12	3.2GHz	4.9GHz	18MB	DDR4-3200	Intel UHD Graphics
Xeon W-11955M	8	16	2.6GHz	5.0GHz	24MB	DDR4-3200	Intel UHD Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Pro 64 for Workstations
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Windows 10 Home 64
- Ubuntu Linux LTS
- Red Hat Enterprise Linux (certified only)

Graphics

Graphics**

Graphics	Type	Memory	TGP	Key Features
NVIDIA® RTX A5000 Laptop GPU	Discrete	16GB GDDR6	115W	DirectX® 12
NVIDIA T1200 Laptop GPU	Discrete	4GB GDDR6	60W	DirectX 12
NVIDIA RTX A4000 Laptop GPU	Discrete	8GB GDDR6	115W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A2000 Laptop GPU	Discrete	4GB GDDR6	60W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A3000 Laptop GPU	Discrete	6GB GDDR6	115W	Dynamic Boost 2.0, DirectX 12

Monitor Support

Monitor Support

Supports up to 5 independent displays (native display and 4 external monitors via HDMI®, USB-C®, or Thunderbolt™) on hybrid mode only

- HDMI supports up to 4K@60Hz on NVIDIA T1200, 8K@60Hz on other discrete graphics
- USB-C up to 5120x3200@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel WM590 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-3200

Memory Slots

Four DDR4 SO-DIMM slots, dual-channel capable

Memory Type**

- DDR4-3200 ECC
- DDR4-3200 non-ECC

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to three drives, 3x M.2 SSD

- M.2 2280 SSD up to 2TB

Storage Slot^[2]

Three M.2 slots

- Two M.2 2280 PCIe® Gen 3x4 slots, support M.2 2280 SSD
- One M.2 2280 PCIe Gen 4x4 slot, supports M.2 2280 SSD

Storage Type***

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	256GB / 512GB / 1TB	Opal2

RAID^[3]

RAID 0/1 support on two M.2 PCIe Gen 3x4 slots

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. M.2 PCIe Gen 4 SSD in a M.2 PCIe Gen 3 slot runs at PCIe Gen 3 speeds
3. Opal capability is not available in RAID mode.

Removable Storage

Optical

None

Card Reader

SD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, Dolby® Atmos®

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 94Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 230W AC adapter

Max Battery Life^[4]

MobileMark® 2018: 8.3 hr
JEITA 2.0: 11 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- Power Adapter**[1]
- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
 - 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
17.3"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	100% sRGB	170°	-
17.3"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1000:1	100% Adobe® RGB	170°	Dolby Vision™, DisplayHDR™ 400

- Color Calibration
- X-Rite® Pantone® factory color calibration (UHD display)
 - No color calibration

Touchscreen

Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

2. For non-OLED display, HDR is only supported under hybrid mode.

Input Device

- Keyboard
- 6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad
- Keyboard Backlight
- LED backlight
- UltraNav™
- 3-button TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical[1]

- Dimensions (WxDxH)
- 415.44 x 280.81 x 24.31-32.45 mm (16.36 x 11.06 x 0.96-1.28 inches)
- Weight
- Starting at 3.564 kg (7.86 lbs)
- Case Color
- Black

Case Material

PPS / 50% GF (top), PA / 50% GF (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY**Network****Onboard Ethernet****

- 2.5GbE, Intel Ethernet Connection I225-LM (vPro models), supports Wake-on-LAN
- 2.5GbE, Intel Ethernet Connection I225-V (non-vPro models), supports Wake-on-LAN

WLAN + Bluetooth^{[1][2]}

- Intel Wi-Fi® 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM160R, 4G LTE CAT16, MIMO 4x4, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]**Standard Ports**

- 2x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4a)
- 1x SD card reader
- 1x Ethernet (2.5GbE RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)
- 1x HDMI 2.0 (model with NVIDIA T1200 graphics)
- 1x HDMI 2.1 (model with NVIDIA RTX graphics)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® P17 Gen 2](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Self-healing BIOS

Other Security

(Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

ISV Certifications

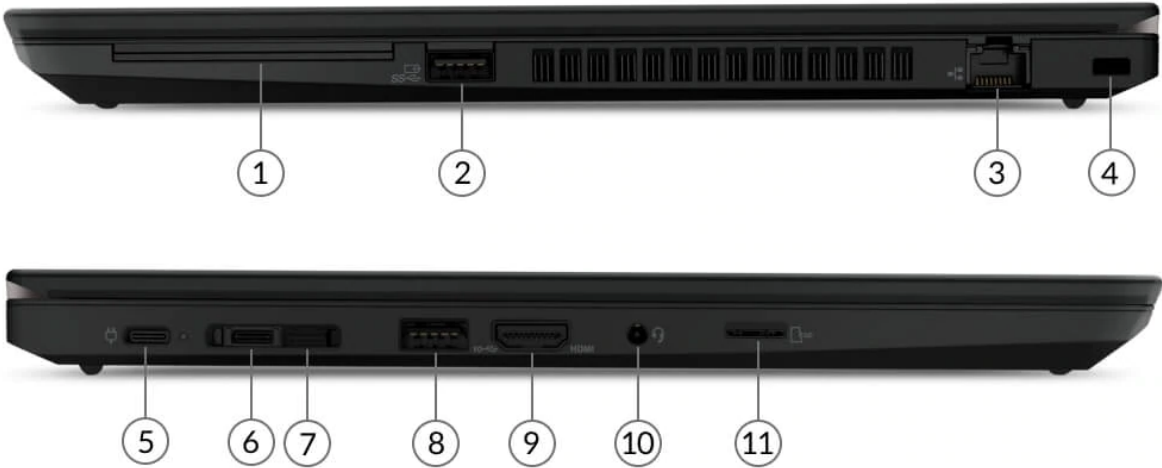
ISV Certifications

Please visit [ISV certifications for Lenovo Workstations](#)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Smart card reader *	7. Side docking connector
2. USB 3.2 Gen 1 (Always On)	8. USB 3.2 Gen 1
3. Ethernet (RJ-45)	9. HDMI 2.0
4. Kensington Security Slot	10. Headphone / microphone combo jack (3.5mm)
5. USB-C 3.2 Gen 2	11. MicroSD card reader
6. USB-C 3.2 Gen 2	

- Notes:
- Ports with * are only available on selected models
 - Optional nano-SIM card slot on the rear side (not shown on the sample product above)
 - The combination of 6 and 7 is side docking connector

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 4450U	4	8	2.5GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 PRO 4650U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 4750U	8	16	1.7GHz	4.1GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4K@60Hz
- USB-C supports up to 5K@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- Up to 24GB (8GB soldered + 16GB SO-DIMM) DDR4-3200
- Up to 32GB (16GB soldered + 16GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 512GB M.2 2242 SSD or 1TB M.2 2280 SSD

Storage Type**

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera**

- HD 720p, with ThinkShutter, fixed focus
- IR & HD 720p hybrid, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2014: 14 hr
MobileMark 2018: 11.5 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.

2. No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
FHD Low Power / Privacy Guard models	Starting at 1.46 kg (3.22 lbs)
HD / FHD touch / FHD non-touch models	Starting at 1.55 kg (3.41 lbs)

Case Color

Black

Surface Treatment

- ISO 22196 compliant anti-microbial surface treatment (not including keyboard, display, and display bezel)
- Not anti-microbial surface treatment

Case Material

PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111EPV, 1x RJ-45

WLAN + Bluetooth[®]**^{[1][2]}

- Wi-Fi[®] 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel[®] Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

WWAN**^[3]

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L850-GL, 4G LTE CAT9, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.
3. For non-WWAN model, it means the model is NOT WWAN upgradable.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via side docking connector or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad T14 Gen 1 \(AMD\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter

- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

System Management

DASH

SERVICE

Warranty

Base Warranty**^{[1][2]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>
2. No base warranty is for special bid only.

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

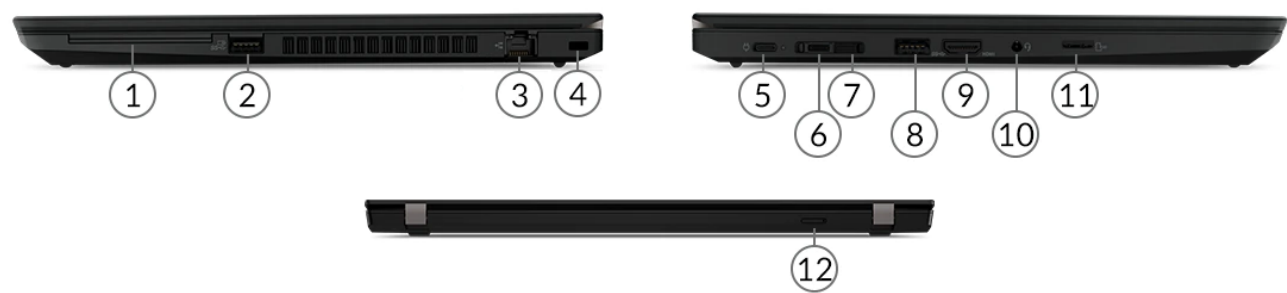


AMD



AMD

OVERVIEW



1. Smart card reader *	7. Side docking connector
2. USB 3.2 Gen 1 (Always On)	8. USB 3.2 Gen 1
3. Ethernet (RJ-45)	9. HDMI 2.0
4. Kensington Security Slot	10. Headphone / microphone combo jack (3.5mm)
5. USB-C 3.2 Gen 2	11. MicroSD card reader
6. USB-C 3.2 Gen 2	12. Nano-SIM card slot *

- Notes:
- Ports with * are only available on selected models
 - The combination of 6 and 7 is side docking connector

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 5450U	4	8	2.6GHz	4.0GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 5600U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5850U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4K@60Hz
- USB-C supports up to 5K@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 256GB M.2 2242 SSD or 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type^{**[2]}

Disk Type	Interface	RPM	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x4	-	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	-	Opal2

- Notes:
- The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
 - The SSD with PCI 4.0x4 performance is downgraded to closer to PCIe 3.0x4 performance due to the system slot limitation.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone^[1]

- Dual array microphone, far-field
- No microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

- Notes:
- No microphone is for special bid only.

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 13.0 hr
JEITA 2.0: 16.9 hr

- Notes:
- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^{**[1][2]}

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	1200:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	178°	ThinkPad® Privacy Guard
14.0"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1500:1	100% Adobe® RGB	178°	Dolby Vision™, DisplayHDR™ 400

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
FHD Low Power / FHD Privacy Guard / UHD models	Starting at 1.46 kg (3.23 lbs)
HD / FHD touch / FHD non-touch models	Starting at 1.55 kg (3.41 lbs)

Case Color[2]**

- Black
- Storm grey

Surface Treatment

Not anti-microbial surface treatment

Case Material**

- Aluminium (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)
- PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Storm grey case is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111H-CG, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®[1][2]**

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® QCNFA765, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

WWAN[3]**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Intel AX200 is for special bid only.
Wi-Fi 6 full features might be limited by country-level restrictions.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
3. WWAN upgradable is only available in EMEA.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via side docking connector or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad T14 Gen 2 \(AMD\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty**^{[1][2]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>
2. No base warranty is for special bid only.

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

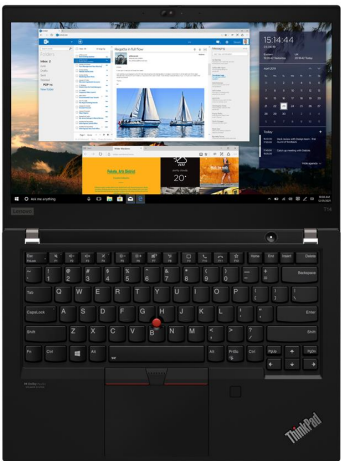
MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

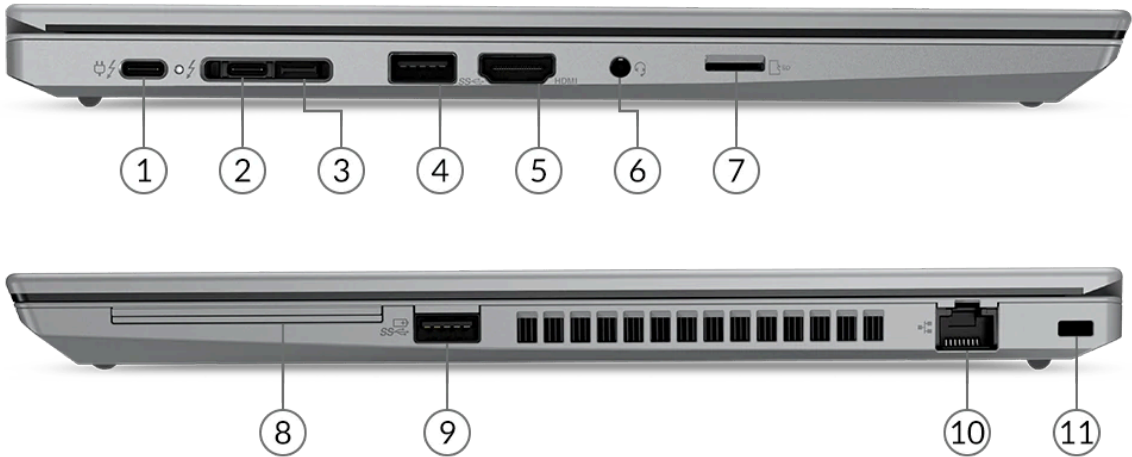


AMD



AMD

OVERVIEW



1. Thunderbolt 4	7. MicroSD card reader
2. Thunderbolt 4	8. Smart card reader *
3. Side docking connector *	9. USB 3.2 Gen 1 (Always On)
4. USB 3.2 Gen 1	10. Ethernet (RJ-45) *
5. HDMI 2.0	11. Kensington Security Slot
6. Headphone / microphone combo jack (3.5mm)	

- Notes:
- Ports with * are only available on selected models
 - Optional nano-SIM card slot on the rear side (not shown on the sample product above)
 - The combination of 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise LTSC
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12.1
NVIDIA® GeForce MX450	Discrete	2GB GDDR6	DirectX 12

Notes:

1. Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual-channel memory. On the system with Intel Core i5 or i7 processor and single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 256GB M.2 2242 SSD or 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type^{**[2]}

Disk Type	Interface	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x4	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	Opal2

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
- 2. The SSD with PCI 4.0x4 performance is downgraded to closer to PCIe 3.0x4 performance due to the system slot limitation.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone^[1]

- Dual array microphone, far-field
- No microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

Notes:

- 1. No microphone is for special bid only.

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 10.7 hr
JEITA 2.0: 14.5 hr

Notes:

- 1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use,

wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**[1][2]

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

- AC adapter offerings depend on the country.
- 45W USB-C AC adapter is only available for the models with integrated graphics.
No power adapter is for special bid only.
In EMEA only 65W USB-C AC adapter is available.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	178°	ThinkPad® Privacy Guard
14.0"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1500:1	100% Adobe® RGB	178°	Dolby Vision™, DisplayHDR™ 400

Color Calibration

- X-Rite® Pantone® factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- 250 nits display is ONLY available in Brazil.

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™
TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Aluminium models	329.4 x 227.5 x 17.9 mm (12.97 x 8.96 x 0.70 inches)
PPS models	329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
FHD Low Power model with PPS top cover	Starting at 1.47 kg (3.23 lbs)
FHD non-touch model with aluminium top cover	Starting at 1.502 kg (3.31 lbs)
FHD non-touch model with PPS top cover	Starting at 1.53 kg (3.37 lbs)
FHD Privacy Guard model with aluminium top cover	Starting at 1.55 kg (3.42 lbs)
FHD Privacy Guard model with PPS top cover	Starting at 1.58 kg (3.49 lbs)
FHD touch model with aluminium top cover	Starting at 1.502 kg (3.31 lbs)
FHD touch model with PPS top cover	Starting at 1.53 kg (3.37 lbs)
UHD model with PPS top cover	Starting at 1.47 kg (3.24 lbs)

Case Color**^[2]

- Black
- Storm grey

Surface Treatment^[3]

- ISO 22196 compliant anti-microbial surface treatment (not including keyboard, display, and display bezel)
- Not anti-microbial surface treatment

Case Material**

- Aluminium (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)
- PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Storm grey case is NOT available in EMEA.
3. Anti-microbial surface treatment is NOT available for aluminium models.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), 1x RJ-45, supports Wake-on-LAN
- No Ethernet

WLAN + Bluetooth®**^{[1][2]}

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**^[3]

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- Quectel EM160R, 4G LTE CAT16, MIMO 4x4, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM

- No SIM card inbox

NFC^[4]

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
3. WWAN is NOT available for aluminium models.
4. NFC is NOT available for aluminium models, and is mutually exclusive with FIPS 201 fingerprint reader and RFID reader.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{*[2]}**

- 1x Ethernet (RJ-45)
- 1x Side docking connector
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s
2. For the models without Ethernet connector, it is recommended to use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.
Smart card reader is NOT available with FIPS 201 fingerprint reader and anti-microbial covers.

Docking**Docking**

Various docking solutions supported via side docking connector (optional) or Thunderbolt.
For more compatible docking solutions, please visit [Docking for ThinkPad T14 Gen 2 \(Intel\)](#)

Monitor Cable**Monitor Cable^{***}**

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader^{**[1]}

- FIPS 201 fingerprint reader on palm rest
- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security^[2]

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) RFID reader

Notes:

1. Match-on-chip fingerprint reader is mutually exclusive with RFID reader.
FIPS 201 fingerprint reader is ONLY available for the models with anti-microbial black covers and is mutually exclusive with NFC.
No fingerprint reader is ONLY available for the models with black cover.
2. RFID reader is ONLY available with FIPS 201 fingerprint reader and anti-microbial covers, and NOT available on Aluminium models.

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1][2]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>
2. No base warranty is for special bid only.

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

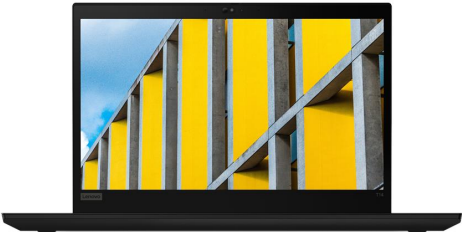
Mil-Spec Test

MIL-STD-810H military test passed

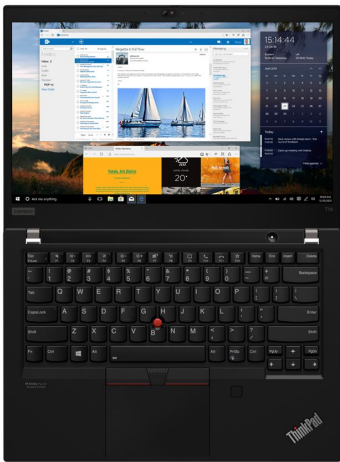
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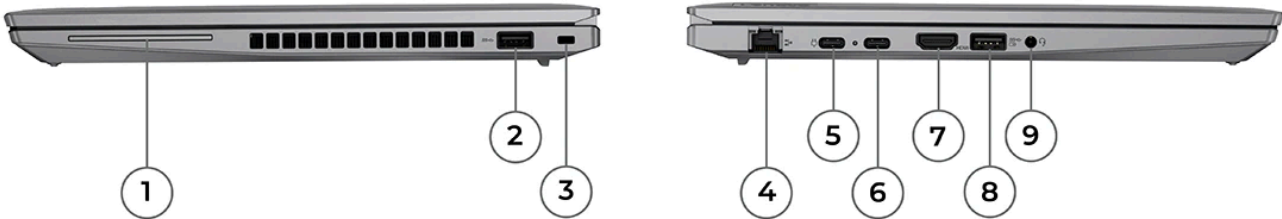


intel



intel

OVERVIEW



1. Smart card reader *	6. USB-C 3.2 Gen 2
2. USB 3.2 Gen 1	7. HDMI
3. Kensington Nano Security Slot	8. USB 3.2 Gen 1 (Always On)
4. Ethernet (RJ-45)	9. Headphone / microphone combo jack (3.5mm)
5. USB-C 3.2 Gen 2	

- Notes:
- Ports with * are only available on selected models
 - Optional nano-SIM card slot on the rear side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 5 PRO 6650U	6	12	2.9GHz	4.5GHz	3MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon™ 660M Graphics
AMD Ryzen 7 PRO 6850U	8	16	2.7GHz	4.7GHz	4MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon 680M Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
AMD Radeon 660M	Integrated	Shared	DirectX® 12
AMD Radeon 680M	Integrated	Shared	DirectX 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4K@60Hz
- USB-C supports up to 4K@60Hz (4 displays output), 5K@60Hz (3 displays output) or 5K@120Hz (up to 2 displays output)

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR5-6400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2242/2280 SSD

Storage Type**

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone^[1]

- Dual array microphone, far-field, Dolby Voice
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Notes:

1. No microphone is for special bid only.

Battery

Battery**

- Integrated Li-Polymer 39.3Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
- Integrated Li-Polymer 52.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)

MobileMark® 2018: up to 14.6 hr with 595 performance score @200nits

MobileMark 25: up to 13.5 hr with 513 performance score @250nits

JEITA 2.0: up to 21.1 hr @150nits

Local video playback: up to 18.1 hr @150nits

Alternate configuration 2

MobileMark 2018: up to 13.3 hr with 694 performance score @200nits

MobileMark 25: up to 12.6 hr with 548 performance score @250nits

JEITA 2.0: up to 16.5 hr @150nits

Local video playback: up to 14.8 hr @150nits

Alternate configuration 3

MobileMark 2018: up to 10.1 hr with 662 performance score @200nits

MobileMark 25: up to 6.0 hr with 541 performance score @250nits

JEITA 2.0: up to 13.2 hr @150nits

Local video playback: up to 10.4 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA Low Power (non-touch), AMD Ryzen 7 PRO 6850U, 16GB LPDDR5, Win 11, 52.5Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA 300nits (touch), AMD Ryzen 5 PRO 6650U, 16GB LPDDR5, Win 11, 52.5Wh battery, best power efficiency power mode
Alternate configuration 3: WQUXGA (touch), AMD Ryzen 5 PRO 6650U, 32GB LPDDR5, Win 11, 52.5Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**[1][2]

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	700:1	45% NTSC	170°	-
14.0"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	800:1	100% sRGB	170°	Eyesafe® Certified
14.0"	WUXGA (1920x1200)	On-cell touch	IPS	300 nits	Anti-glare	16:10	700:1	45% NTSC	170°	-
14.0"	WUXGA (1920x1200)	On-cell touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	ThinkPad® Privacy Guard
14.0"	2.2K (2240x1400)	None	IPS	300 nits	Anti-glare	16:10	1500:1	100% sRGB	170°	TÜV Low Blue Light
14.0"	WQUXGA (3840x2400)	Add On Film Touch	IPS	500 nits	Anti-glare, Anti-reflection, Anti-smudge	16:10	1500:1	100% DCI-P3	170°	Dolby Vision™, DisplayHDR™ 400, Eyesafe Certified

Touchscreen**

- Add-on Film Touch, supports 10-point touch
- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 61 x 115 mm (2.40 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Model with storm grey cover	317.7 x 227.36 x 17.9 mm (12.51 x 8.95 x 0.70 inches)
Model with black cover	317.7 x 226.9 x 17.9 mm (12.51 x 8.93 x 0.70 inches)

Weight

Models	Weight
Model with 39.3Wh battery	Starting at 1.21 kg (2.67 lbs)
Model with 52.5Wh battery	Starting at 1.32 kg (2.91 lbs)

Case Color**

- Storm grey
- Thunder black

Surface Treatment

Not anti-microbial surface treatment

Case Material**

- Thunder black models: PC 50% GF + PC 20% CF (top), PPS (bottom)
- Storm grey models: aluminium (top), PPS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Realtek RTL8111HN (non-DASH models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Realtek RTL8111EPV (DASH models), 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**^{[1][2]}

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® NFA-725A Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI, up to 4K/60Hz
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{*}**

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad T14 Gen 3 \(AMD\)](#)

Monitor Cable**Monitor Cable^{***}**

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified, with Microsoft Pluton TPM 2.0 integrated in SoC

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration

- Certificate based BIOS authentication
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- Mirametrix Glance

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty^{*[1][2]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>
2. No base warranty is for special bid only.

ENVIRONMENTAL

Sustainability

Material

97% PCC recycled plastic used in speaker enclosure
97% PCC recycled plastic used in the 52.5Wh battery; 25-30% in the 39.3Wh
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) Eyesafe Certified
- (Optional) TÜV Rheinland® Low Blue Light

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



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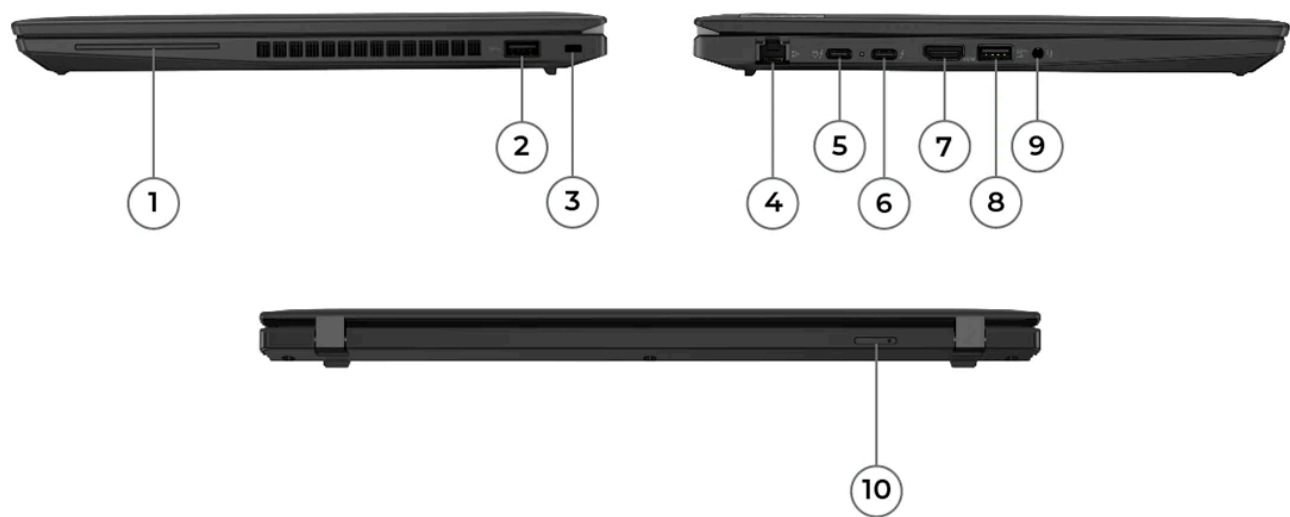


AMD



AMD

OVERVIEW



1. Smart card reader *	6. Thunderbolt 4
2. USB 3.2 Gen 1	7. HDMI
3. Kensington Nano Security Slot	8. USB 3.2 Gen 1 (Always On)
4. Ethernet (RJ-45)	9. Headphone / microphone combo jack (3.5mm)
5. Thunderbolt 4	10. Nano-SIM card slot *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i5 / i7 Processor

Processor**^[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1245U	10 (2 P-core + 8 E-core)	12	P-core 1.6GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1265U	10 (2 P-core + 8 E-core)	12	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i5-1250P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1270P	12 (4 P-core + 8 E-core)	16	P-core 2.2GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.5GHz	18MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1280P	14 (6 P-core + 8 E-core)	20	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	24MB	DDR4-3200	Intel Iris Xe Graphics

Notes:

1. i7-1280P is special bid only in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**^[1]

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12.1
NVIDIA® GeForce MX550	Discrete	2GB GDDR6	DirectX 12

Notes:

1. Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual-channel memory. On the system with Intel Core i5 or i7 processor and single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics. NVIDIA GeForce RTX™ 2050 is NOT available in EMEA.

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz

- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2242/2280 SSD

Storage Type^{**[2]}

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. PCIe x4 SSD may be PCIe 3.0x4 or PCIe 4.0x4 as substitution.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone^[1]

- Dual array microphone, far-field, Dolby Voice
- No microphone

Camera^{**[2]}

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus

- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Notes:

1. No microphone is for special bid only.
2. Only 720p and IR & 1080p hybrid are available in EMEA.

Battery

Battery**^[1]

- Integrated Li-Polymer 39.3Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
- Integrated Li-Polymer 52.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[2]

Configuration 1 (max battery life)

MobileMark® 2018: up to 10.0 hr with 791 performance score @200nits

MobileMark 25: up to 8.2 hr with 601 performance score @250nits

JEITA 2.0: up to 19.9 hr @150nits

Local video playback: up to 15.1 hr @150nits

Alternate configuration 2

MobileMark 2018: up to 9.4 hr with 930 performance score @200nits

MobileMark 25: up to 6.5 hr with 653 performance score @250nits

JEITA 2.0: up to 12.0 hr @150nits

Local video playback: up to 10.1 hr @150nits

Alternate configuration 3

MobileMark 2018: up to 7.4 hr with 1055 performance score @200nits

MobileMark 25: up to 4.8 hr with 712 performance score @250nits

JEITA 2.0: up to 11.0 hr @150nits

Local video playback: up to 9.1 hr @150nits

Notes:

1. 39.3Wh battery is ONLY available for the models with integrated graphics.
2. Configuration 1 (max battery life): WUXGA (non-touch), Intel i5-1240P, 8GB soldered, Win 11, 52.5Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (touch), Intel i5-1250P, 16GB (8GB soldered + 8GB SO-DIMM), Win 11, 52.5Wh battery, best power efficiency power mode
Alternate configuration 3: WQUXGA (touch), Intel i7-1280P, 32GB (16GB soldered + 16GB SO-DIMM), NVIDIA GeForce MX550, Win 11, 52.5Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.

Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.

The maximum capacity of the battery will decrease with time, ambient temperature and use.

Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. 45W USB-C AC adapter is ONLY available for the models with integrated graphics.
45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA.
No power adapter is for special bid only.

DESIGN

Display

Display**^{[1][2]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	700:1	45% NTSC	170°	-
14.0"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	800:1	100% sRGB	170°	Low power, Eyesafe® Certified, ICC Template color calibration
14.0"	WUXGA (1920x1200)	On-cell touch	IPS	300 nits	Anti-glare	16:10	700:1	45% NTSC	170°	-
14.0"	WUXGA (1920x1200)	On-cell touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	ThinkPad® Privacy Guard
14.0"	2.2K (2240x1400)	None	IPS	300 nits	Anti-glare	16:10	1500:1	100% sRGB	170°	Eyesafe Certified
14.0"	WQUXGA (3840x2400)	Add On Film Touch	IPS	500 nits	Anti-reflection, Anti-smudge	16:10	1500:1	100% DCI-P3	170°	Dolby Vision™, DisplayHDR™ 400, Eyesafe Certified, ICC Template color calibration

Color Calibration

- ICC Template color calibration
- No color calibration

Touchscreen**

- Add-on Film Touch, supports 10-point touch
- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
2. 2.2K display is NOT available in EMEA.

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight^[1]

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 61 x 115 mm (2.40 x 4.53 inches)

Notes:

1. Storm grey cover is ONLY available with backlit keyboard.

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Model with storm grey cover	317.7 x 227.36 x 17.9 mm (12.51 x 8.95 x 0.70 inches)
Model with black cover	317.7 x 226.9 x 17.9 mm (12.51 x 8.93 x 0.70 inches)

Weight

Models	Weight
Models with storm grey cover and 39.3Wh battery	Starting at 1.33 kg (2.93 lbs)
Models with storm grey cover and 52.5Wh battery	Starting at 1.36 kg (3.0 lbs)
Models with thunder black cover and 39.3Wh battery	Starting at 1.21 kg (2.65 lbs)
Models with thunder black cover and 52.5Wh battery	Starting at 1.32 kg (2.91 lbs)

Case Color**[2]

- Storm grey
- Thunder black

Surface Treatment[3]

- ISO 22196 compliant anti-microbial surface treatment (not including UltraNav, keyboard, display, and display bezel)
- Not anti-microbial surface treatment

Case Material**

- Model with storm grey cover: aluminium (top), PPS (bottom)
- Model with thunder black cover and integrated graphics: PC 50% GF + PC 20% CF (top), PPS (bottom)
- Model with thunder black cover and discrete graphics: PC 50% GF + PC 20% CF (top), aluminium (bottom)

Notes:

- The system dimensions and weight vary depending on configurations.
- Storm grey cover is ONLY available for the models with integrated graphics.
Storm grey cover is NOT available in EMEA.
- Anti-microbial surface treatment is NOT available for storm grey models.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**[1][2]

- Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® NFA-725A Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**[3]

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC[4]

- Near Field Communication
- No support

Notes:

- Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
- Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
- Wireless WAN upgradable to 4G is ONLY available in EMEA.
Fibocom L860-GL CAT16 is special bid only in EMEA.
- NFC is NOT available for storm grey models.
NFC is special bid only in EMEA.

Ports[1]

Standard Ports

ThinkPad T14 Gen 3 (Intel)

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad T14 Gen 3 \(Intel\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader^[1]

- Smart card reader
- No smart card reader

Fingerprint Reader^[2]

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Firmware Resiliency 3.0

Other Security^[3]

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- Human Presence Detection (software)
- Mirametrix Glance

- (Optional) RFID reader

Notes:

1. Smart card reader is mutually exclusive with RFID reader.
2. Fingerprint reader is standard on storm grey models and optional on thunder black models.
3. RFID reader is ONLY available with anti-microbial cover, NOT available on storm grey models, and mutually exclusive with smart card reader.

MANAGEABILITY

System Management

System Management^[1]**

- Intel vPro Enterprise
- Intel vPro Essentials
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

97% PCC recycled plastic used in speaker enclosure
97% PCC recycled plastic used in the 52.5Wh battery
25-30% in the 39.3Wh
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

(Optional) Eyesafe Certified

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Smart card reader *	6. Ethernet extension connector
2. USB 3.2 Gen 1 (Always On)	7. USB 3.2 Gen 1
3. Kensington Security Slot	8. HDMI 2.0
4. USB-C 3.2 Gen 2	9. Headphone / microphone combo jack (3.5mm)
5. USB-C 3.2 Gen 2	

- Notes:
- Ports with * are only available on selected models
 - Card slot on the rear side (not shown on the sample product above) is for microSD card (WLAN model) or nano-SIM + microSD card (WWAN model)
 - The combination of 5 and 6 is side docking connector

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 5 PRO 4650U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 7 PRO 4750U	8	16	1.7GHz	4.1GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4K@60Hz
- USB-C supports up to 5K@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 512GB M.2 2242 SSD or 1TB M.2 2280 SSD

Storage Type**

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader**

- MicroSD card slot (WLAN model)
- Nano-SIM + microSD card slot (WWAN model)

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera**

- HD 720p, with ThinkShutter, fixed focus
- IR & HD 720p hybrid, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2014: 15.9 hr
MobileMark 2018: 13.6 hr
JEITA 2.0: 17.4 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
- In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
- For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical[1]

Dimensions (WxDxH)

Models	Dimensions
FHD Low Power models	328.8 x 225.8 x 16.1 mm (12.94 x 8.89 x 0.63 inches)
FHD touch / FHD non-touch / FHD Privacy Guard models	329.0 x 226.15 x 16.7 mm (12.95 x 8.90 x 0.66 inches)

Weight

Models	Weight
FHD Low Power / FHD Privacy Guard models	Starting at 1.27 kg (2.81 lbs)
FHD touch / FHD non-touch models	Starting at 1.35 kg (2.98 lbs)

Case Color

Black

Case Material

Carbon fiber hybrid (top), magnesium (keyboard cover & bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111EPV, 1x RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2, supports Wake-on-LAN

WLAN + Bluetooth[®]**^{[1][2]}

- Wi-Fi[®] 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel[®] Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

WWAN**^[3]

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L850-GL, 4G LTE CAT9, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.
3. For non-WWAN model, it means the model is NOT WWAN upgradable.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x Ethernet extension connector
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM & microSD card slot (WWAN support models)
- 1x microSD card slot (WLAN model)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
 - USB 2.0: 480 Mbit/s;
 - USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
 - USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
 - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
 - Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via side docking connector or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad T14s Gen 1 \(AMD\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

System Management

DASH

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

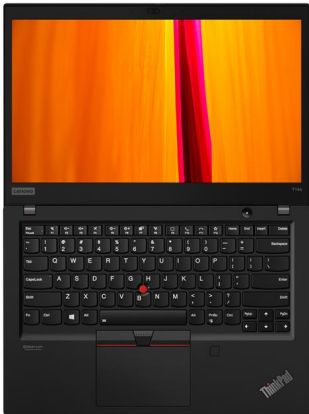
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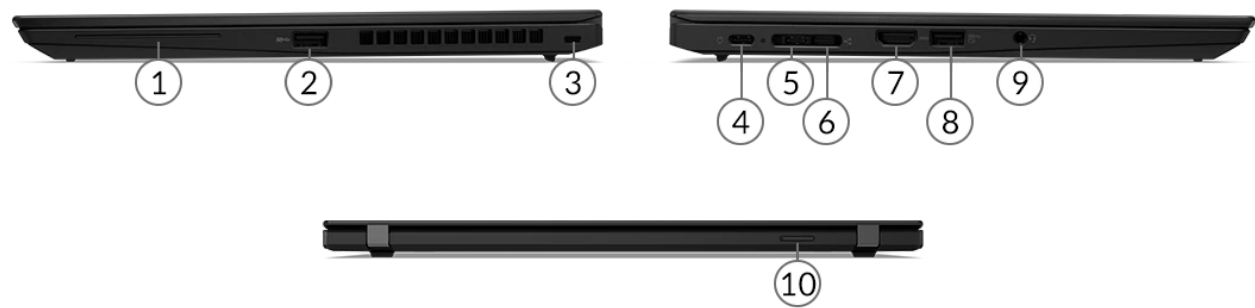


AMD



AMD

OVERVIEW



1. Smart card reader *	6. Ethernet extension connector *
2. USB 3.2 Gen 1	7. HDMI 2.0
3. Kensington Nano Security Slot	8. USB 3.2 Gen 1 (Always On)
4. USB-C 3.2 Gen 2	9. Headphone / microphone combo jack (3.5mm)
5. USB-C 3.2 Gen 2	10. Nano-SIM card slot *

- Notes:
- Ports with * are only available on selected models
 - The combination of 5 and 6 is side docking connector

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 5450U	4	8	2.6GHz	4.0GHz	2MB L2 / 8MB L3	LPDDR4-4266	AMD Radeon™ Graphics
AMD Ryzen 5 5600U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	LPDDR4-4266	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	LPDDR4-4266	AMD Radeon Graphics
AMD Ryzen 7 5800U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5850U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	LPDDR4-4266	AMD Radeon Graphics

Notes:

1. Ryzen 3 PRO 5450U and Ryzen 5 5600U are NOT available in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise LTSC
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4K@60Hz
- USB-C supports up to 5K@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR4x-4266

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 256GB M.2 2242 SSD or 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type^{**[2]}

Disk Type	Interface	RPM	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x4	-	256GB	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	256GB / 512GB / 1TB	Opal2

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
- 2. The SSD with PCI 4.0x4 performance is downgraded to closer to PCIe 3.0x4 performance due to the system slot limitation.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone with 360° noise-cancelling, far-field
- No microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[3]

MobileMark® 2018: 14.9 hr
JEITA 2.0: 19.4 hr

Notes:

- 1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use,

wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**[1][2]

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

- Notes:
1. AC adapter offerings depend on the country.
 2. 45W USB-C AC adapter is only available for the models with integrated graphics.
No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	1200:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	178°	ThinkPad® Privacy Guard
14.0"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1500:1	100% Adobe® RGB	178°	Dolby Vision™, DisplayHDR™ 400

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

- Notes:
1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight[1]

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

- Notes:
1. Non-backlit keyboard is only available for the models with black cover.

Mechanical[1]

Dimensions (WxDxH)

Models	Dimensions
Model with black cover and FHD Low Power / UHD display	327.5 x 224 x 16.14 mm (12.89 x 8.82 x 0.64 inches)
Model with black cover and FHD touch / FHD non-touch / FHD Privacy Guard display	327.5 x 224.4 x 16.81 mm (12.89 x 8.83 x 0.66 inches)
Storm grey models	327.5 x 225.3 x 16.81 mm (12.89 x 8.87 x 0.66 inches)

Weight

Models	Weight
Model with black cover and FHD Low Power / UHD display	Starting at 1.28 kg (2.83 lbs)
Model with black cover and FHD Privacy Guard display	Starting at 1.415 kg (3.12 lbs)
Model with black cover and FHD touch / FHD non-touch display	Starting at 1.36 kg (2.99 lbs)
Storm grey with FHD Low Power / UHD models	Starting at 1.51 kg (3.32 lbs)
Storm grey with FHD Privacy Guard models	Starting at 1.62 kg (3.57 lbs)
Storm grey with FHD touch / FHD non-touch models	Starting at 1.57 kg (3.46 lbs)

Case Color**[2]

- Storm grey
- Villi black

Case Material**

- Villi black models: carbon fiber hybrid (top), magnesium (keyboard cover), aluminium (bottom)
- Storm grey models: aluminium (top), aluminium (keyboard cover & bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Storm grey case is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Realtek RTL8111EPV, 1x RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2, supports Wake-on-LAN
- No Ethernet

WLAN + Bluetooth®**[1][2]

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® QCNFA765, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

WWAN**[3]

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- Qualcomm Snapdragon™ X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC[4]

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
3. WWAN is NOT available for the models with storm grey cover.
4. NFC is NOT available for the models with storm grey cover.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports^{*[2]}**

- 1x Ethernet extension connector
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. If your computer has Ethernet icon, it supports wired Ethernet connection with ThinkPad Ethernet Extension Adapter or ThinkPad Basic/Pro/Ultra Docking Station.
If your computer does not have Ethernet icon, the Ethernet connector does not support Ethernet connection. We recommend you use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.

Docking**Docking**

Various docking solutions supported via side docking connector or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad T14s Gen 2 \(AMD\)](#)

Monitor Cable**Monitor Cable^{***}**

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY**System Management****System Management**

- DASH
- Non-DASH

SERVICE**Warranty****Base Warranty**^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL**Operating Environment****Temperature^[1]**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES**Bundled Accessories****Bundled Accessories*****

- Lenovo USB-C to Ethernet Adapter
- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



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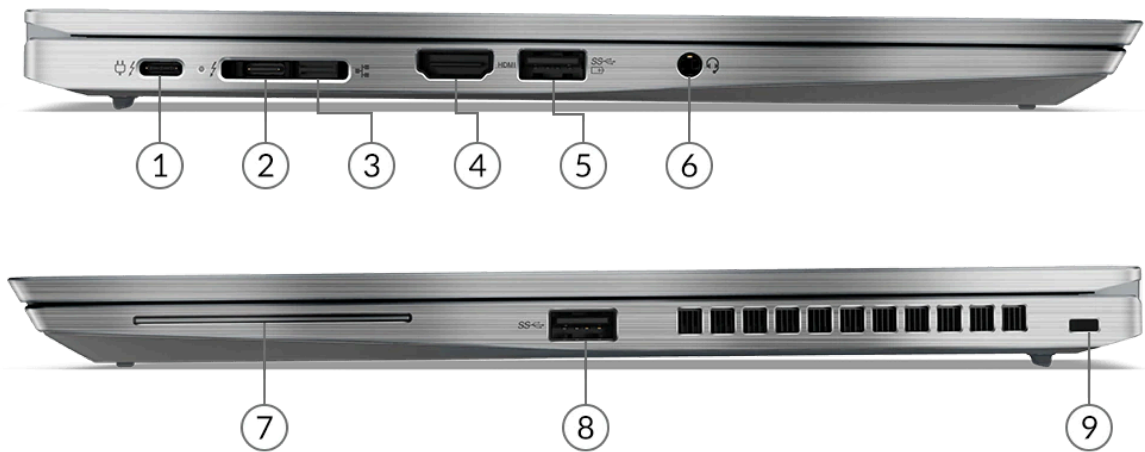


AMD



AMD

OVERVIEW



1. Thunderbolt 4	6. Headphone / microphone combo jack (3.5mm)
2. Thunderbolt 4	7. Smart card reader *
3. Ethernet extension connector *	8. USB 3.2 Gen 1
4. HDMI 2.0	9. Kensington Nano Security Slot
5. USB 3.2 Gen 1 (Always On)	

- Notes:
- Ports with * are only available on selected models
 - Optional nano-SIM card slot on the rear side (not shown on the sample product above)
 - The combination of 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise LTSC
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12.1

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR4x-4266

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the

technology develops.

Storage

Storage Support^[1]

One drive, up to 256GB M.2 2242 SSD or 2TB M.2 2280 SSD

Storage Type**

Disk Type	Interface	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 14.5 hr
JEITA 2.0: 23.6 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

- AC adapter offerings depend on the country.
- No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	800:1	72% NTSC	170°	ThinkPad® Privacy Guard
14.0"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1500:1	100% Adobe® RGB	170°	Dolby Vision™, DisplayHDR™ 400

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Model with black cover and FHD Low Power / UHD display	327.5 x 224 x 16.14 mm (12.89 x 8.82 x 0.64 inches)
Model with black cover and FHD touch / FHD non-touch / FHD Privacy Guard display	327.5 x 224.4 x 16.81 mm (12.89 x 8.83 x 0.66 inches)
Storm grey models	327.5 x 225.3 x 16.81 mm (12.89 x 8.87 x 0.66 inches)

Weight

Models	Weight
--------	--------

Model with black cover and FHD Low Power / UHD display	Starting at 1.28 kg (2.83 lbs)
Model with black cover and FHD touch / FHD non-touch / FHD Privacy Guard display	Starting at 1.36 kg (2.99 lbs)
Storm grey with FHD Low Power / UHD models	Starting at 1.51 kg (3.32 lbs)
Storm grey with FHD touch / FHD non-touch / FHD Privacy Guard models	Starting at 1.57 kg (3.46 lbs)

Case Color**

- Storm grey
- Villi black

Case Material**

- Villi black models: carbon fiber hybrid (top), magnesium (keyboard cover), aluminium (bottom)
- Storm grey models: aluminium (top), aluminium (keyboard cover & bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), 1x RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2, supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), 1x RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2, supports Wake-on-LAN
- No Ethernet

WLAN + Bluetooth®^{[1][2]}**

- Intel Wi-Fi® 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- Qualcomm® Snapdragon™ X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports*^[2]**

- 1x Ethernet extension connector

- 1x Side docking connector (Ethernet model only)
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s
2. Ethernet and side docking connector are coexisting. On some models, both of them are equipped. On some models, neither of them is equipped.
If your computer has Ethernet icon, it supports wired Ethernet connection with ThinkPad Ethernet Extension Adapter or ThinkPad Basic/Pro/Ultra Docking Station.
If your computer does not have Ethernet icon, the Ethernet connector does not support Ethernet connection. We recommend you use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.

Docking

Docking

Various docking solutions supported via side docking connector (optional) or Thunderbolt.
For more compatible docking solutions, please visit [Docking for ThinkPad T14s Gen 2 \(Intel\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Human Presence Detection

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE**Warranty****Base Warranty^{**[1]}**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL**Operating Environment****Temperature^[1]**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES**Bundled Accessories****Bundled Accessories^{***}**

- Lenovo USB-C to Ethernet Adapter
- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS**Green Certifications****Green Certifications**

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications^[1]

(Optional) Intel Evo™ Platform

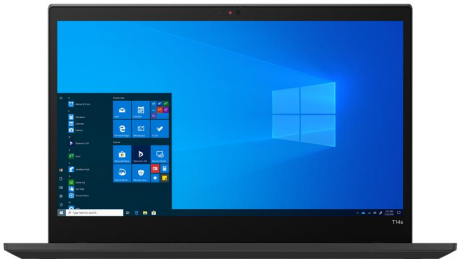
Notes:

1. Intel Evo is only available for the models with FHD Low Power, FHD Privacy Guard, or UHD display.

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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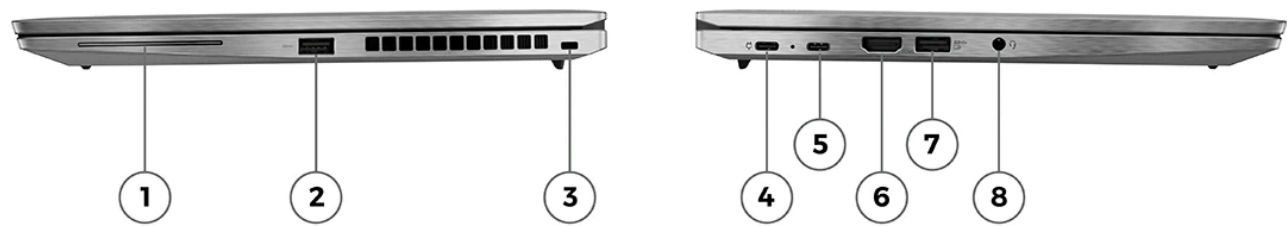


intel



intel

OVERVIEW



1. Smart card reader *	5. USB-C 3.2 Gen 2
2. USB 3.2 Gen 1	6. HDMI
3. Kensington Nano Security Slot	7. USB 3.2 Gen 1 (Always On)
4. USB4	8. Headphone / microphone combo jack (3.5mm)

- Notes:
- Ports with * are only available on selected models
 - Optional nano-SIM card slot on the rear side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 5 PRO 6650U	6	12	2.9GHz	4.5GHz	3MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon™ 660M Graphics
AMD Ryzen 7 PRO 6850U	8	16	2.7GHz	4.7GHz	4MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon 680M Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
AMD Radeon 660M	Integrated	Shared	DirectX® 12
AMD Radeon 680M	Integrated	Shared	DirectX 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4K@60Hz
- USB-C supports up to 4K@60Hz (4 displays output), 5K@60Hz (3 displays output) or 5K@120Hz (up to 2 displays output)

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR5-6400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2242/2280 SSD

Storage Type**

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, 360° far-field, Dolby Voice
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life⁽¹⁾

Configuration 1 (max battery life)
MobileMark® 2018: up to 19.52 hr with 707 performance score @200nits
MobileMark 25: up to 18.18 hr with 564 performance score @250nits
JEITA 2.0: up to 22.98 hr @150nits
Local video playback: up to 22.1 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 14.68 hr with 698 performance score @200nits
MobileMark 25: up to 13.47 hr with 553 performance score @250nits
JEITA 2.0: up to 20.22 hr @150nits
Local video playback: up to 18.1 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 10.68 hr with 806 performance score @200nits
MobileMark 25: up to 9.78 hr with 539 performance score @250nits
JEITA 2.0: up to 12.75 hr @150nits
Local video playback: up to 10.5 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA Low Power (non-touch), AMD Ryzen 7 PRO 6850U, 16GB LPDDR5, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA 300nits (touch), AMD Ryzen 5 PRO 6650U, 16GB LPDDR5, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 3: 2.8K OLED, AMD Ryzen 5 PRO 6650U, 32GB LPDDR5, Win 11, 57Wh battery, best power efficiency power

mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.

Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.

The maximum capacity of the battery will decrease with time, ambient temperature and use.

Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**[1][2]

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	600:1	45% NTSC	170°	-
14.0"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	800:1	100% sRGB	170°	Eyesafe® Certified
14.0"	WUXGA (1920x1200)	Multi-Touch	IPS	300 nits	Anti-glare	16:10	600:1	45% NTSC	170°	-
14.0"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare	16:10	800:1	100% sRGB	170°	ThinkPad® Privacy Guard
14.0"	2.2K (2240x1400)	None	IPS	300 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	TÜV Low Blue Light Method 2
14.0"	2.8K (2880x1800)	None	OLED	500nits	Anti-glare	16:10	100000:1	100% DCI-P3	170°	Eyesafe Certified

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 61 x 115 mm (2.40 x 4.53 inches)

Mechanical^[1]**Dimensions (WxDxH)**

317.5 x 226.9 x 16.9 mm (12.5 x 8.93 x 0.67 inches)

Weight

Starting at 1.23 kg (2.71 lbs)

Case Color**

- Storm grey
- Thunder black

Case Material**

- Thunder black models: carbon fiber hybrid (top), aluminium (bottom)
- Storm grey models: aluminium (top), aluminium (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY**Network****Onboard Ethernet^[1]**

No Ethernet

WLAN + Bluetooth®^{[2][3]}**

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® NFA-725A Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom FM350-GL 5G NR module with embedded eSIM functionality, M.2 Card
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]**Standard Ports**

- 1x USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort 1.4a)
- 1x HDMI, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
 - USB 2.0: 480 Mbit/s;
 - USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
 - USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
 - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
 - Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad T14s Gen 3 \(AMD\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified, with Microsoft Pluton TPM 2.0 integrated in SoC

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Human Presence Detection
- Mirametrix Glance

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

97% PCC recycled plastic used in speaker enclosure
97% recycled plastic used in the 57Wh battery
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) Eyesafe Certified
- (Optional) TÜV Rheinland® Low Blue Light

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

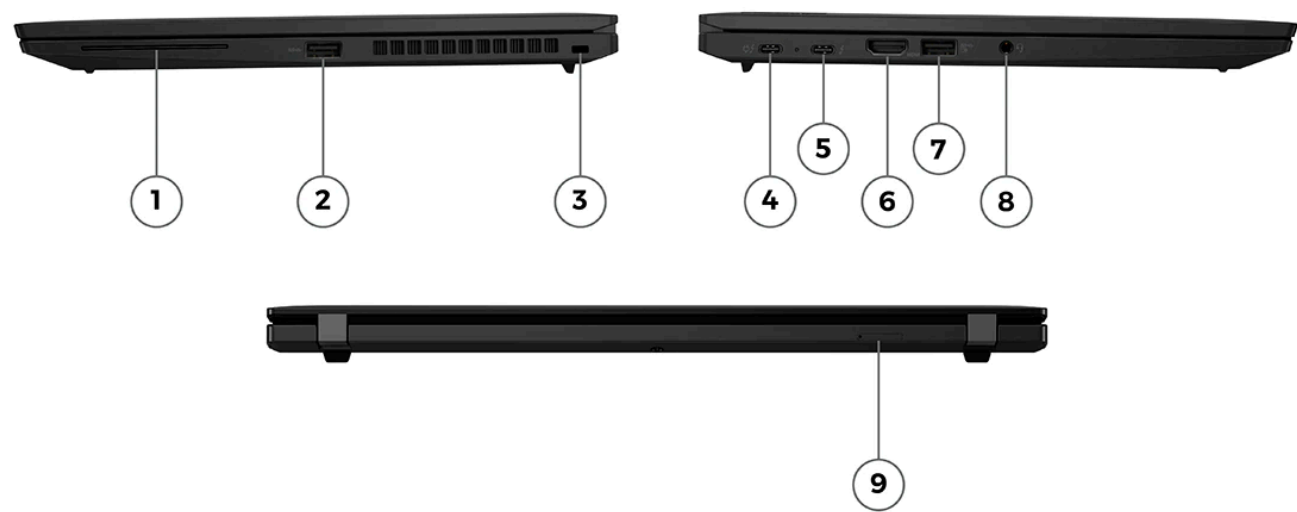


AMD



AMD

OVERVIEW



1. Smart card reader *	6. HDMI
2. USB 3.2 Gen 1	7. USB 3.2 Gen 1 (Always On)
3. Kensington Security Slot	8. Headphone / microphone combo jack (3.5mm)
4. Thunderbolt 4	9. Nano-SIM card slot *
5. Thunderbolt 4	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i5 / i7 Processor

Processor**^[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris® Xe Graphics
Core i5-1245U	10 (2 P-core + 8 E-core)	12	P-core 1.6GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1265U	10 (2 P-core + 8 E-core)	12	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i5-1250P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1270P	12 (4 P-core + 8 E-core)	16	P-core 2.2GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.5GHz	18MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1280P	14 (6 P-core + 8 E-core)	20	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	24MB	LPDDR5-5200	Intel Iris Xe Graphics

Notes:

1. i7-1280P is special bid only in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12.1

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type^[2]

LPDDR5-4800

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. Installed memory is actually 6400MHz but run at 4800MHz due to platform limitation

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2242/2280 SSD

Storage Type^{**[2]}

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. PCIe x4 SSD may be PCIe 3.0x4 or PCIe 4.0x4 as substitution.
2TB SSD is special bid only in EMEA.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field, Dolby Voice
- No microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 13.6 hr with 978 performance score @200nits
MobileMark 25: up to 10.8 hr with 669 performance score @250nits
JEITA 2.0: up to 24.0 hr @150nits
Local video playback: up to 18.1 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 10.0 hr with 1066 performance score @200nits
MobileMark 25: up to 7.2 hr with 712 performance score @250nits
JEITA 2.0: up to 15.3 hr @150nits
Local video playback: up to 14.8 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 8.2 hr with 936 performance score @200nits
MobileMark 25: up to 6.3 hr with 750 performance score @250nits
JEITA 2.0: up to 12.3 hr @150nits
Local video playback: up to 11.8 hr @150nits

- Notes:
1. Configuration 1 (max battery life): WUXGA (non-touch), Intel i5-1235U, 8GB LPDDR5, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (touch), Intel i5-1250P, 16GB LPDDR5, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 3: 2.8K OLED, Intel i5-1245U, 8GB LPDDR5, Win 11, 57Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.

Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.

The maximum capacity of the battery will decrease with time, ambient temperature and use.

Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter^{**[1][2]}

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

- Notes:
1. AC adapter offerings depend on the country.
 2. No power adapter is for special bid only.

DESIGN

Display

Display^{**[1]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	600:1	45% NTSC	170°	-
14.0"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	800:1	100% sRGB	170°	Eyesafe® Certified
14.0"	WUXGA (1920x1200)	Multi-Touch	IPS	300 nits	Anti-glare	16:10	600:1	45% NTSC	170°	-
14.0"	WUXGA	Multi-	IPS	500 nits	Anti-glare	16:10	800:1	100%	170°	ThinkPad® Privacy

	(1920x1200)	touch						sRGB		Guard
14.0"	2.2K (2240x1400)	None	IPS	300 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	TÜV Low Blue Light Method 2
14.0"	2.8K (2880x1800)	None	OLED	SDR 400nits, HDR 500nits	Anti-glare, Anti- reflection, Anti-smudge	16:10	100000:1	100% DCI-P3	170°	DisplayHDR™ 500 True Black, Eyesafe Certified

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight^[1]

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 61 x 115 mm (2.40 x 4.53 inches)

Notes:

1. Storm grey cover is ONLY available with backlit keyboard.

Mechanical^[1]

Dimensions (WxDxH)

317.5 x 226.9 x 16.9 mm (12.5 x 8.93 x 0.67 inches)

Weight

Models	Weight
Storm grey models	Starting at 1.45 kg (3.19 lbs)
Thunder black models	Starting at 1.21 kg (2.67 lbs)

Case Color^{**[2]}

- Storm grey
- Thunder black

Case Material^{**}

- Thunder black models: carbon fiber hybrid (top), aluminium (bottom)
- Storm grey models: aluminium (top), aluminium (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Storm grey case is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®^{[2][3]}

Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom FM350-GL 5G NR module with embedded eSIM functionality, M.2 Card
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]**Standard Ports**

- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 2.0)
- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x HDMI, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad T14s Gen 3 \(Intel\)](#)

Monitor Cable**Monitor Cable*****

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

ThinkPad T14s Gen 3 (Intel)

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Firmware Resiliency 3.0

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Human Presence Detection
- Mirametrix Glance
- Tile ready

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Enterprise
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

97% PCC recycled plastic used in speaker enclosure
97% recycled plastic used in the 57Wh battery
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) Eyesafe Certified
- (Optional) Intel Evo™ Platform
- (Optional) TÜV Rheinland® Low Blue Light Method 2

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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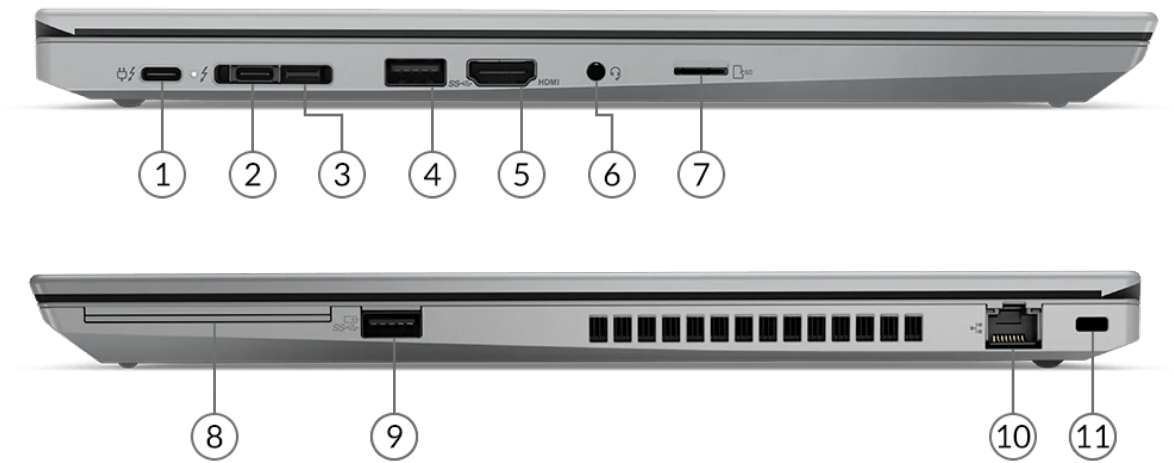


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OVERVIEW



1. Thunderbolt 4	7. MicroSD card reader
2. Thunderbolt 4	8. Smart card reader *
3. Side docking connector *	9. USB 3.2 Gen 1 (Always On)
4. USB 3.2 Gen 1	10. Ethernet (RJ-45) *
5. HDMI 2.0	11. Kensington Security Slot
6. Headphone / microphone combo jack (3.5mm)	

- Notes:
- Ports with * are only available on selected models
 - Optional nano-SIM card slot on the rear side (not shown on the sample product above)
 - The combination of 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**^[1]

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12.1
NVIDIA® GeForce MX450	Discrete	2GB GDDR6	DirectX 12

Notes:

1. Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual-channel memory. On the system with Intel Core i5 or i7 processor and single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 256GB M.2 2242 SSD or 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type^{**[2]}

Disk Type	Interface	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x4	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. The SSD with PCI 4.0x4 performance is downgraded to closer to PCIe 3.0x4 performance due to the system slot limitation.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone^[1]

- Dual array microphone, far-field
- No microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

Notes:

1. No microphone is for special bid only.

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 12 hr
JEITA 2.0: 16.8 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with

time and use.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

- AC adapter offerings depend on the country.
- No power adapter is for special bid only.
In EMEA only 65W USB-C AC adapter is available.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	170°	Dolby Vision™, DisplayHDR™ 400, DC dimming

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

365.8 x 248 x 19.1 mm (14.40 x 9.76 x 0.75 inches)

Weight

Models	Weight
FHD non-touch model with aluminium top cover	Starting at 1.79 kg (3.96 lbs)
FHD non-touch model with PPS top cover	Starting at 1.82 kg (4.02 lbs)

FHD touch model with aluminium top cover	Starting at 1.81 kg (3.999 lbs)
FHD touch model with PPS top cover	Starting at 1.84 kg (4.07 lbs)
UHD model with PPS top cover	Starting at 1.75 kg (3.86 lbs)

Case Color**[2]

- Black
- Storm grey

Surface Treatment

- ISO 22196 compliant anti-microbial surface treatment (not including keyboard, display, and display bezel)
- Not anti-microbial surface treatment

Case Material**

- Aluminium (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)
- PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Storm grey case is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), 1x RJ-45, supports Wake-on-LAN
- No Ethernet

WLAN + Bluetooth®**[1][2]

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- Quectel EM160R, 4G LTE CAT16, MIMO 4x4, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***[2]

- 1x Ethernet (RJ-45)
- 1x Side docking connector
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s
2. For the models without Ethernet connector, it is recommended to use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.

Docking

Docking

Various docking solutions supported via side docking connector (optional) or Thunderbolt.
For more compatible docking solutions, please visit [Docking for ThinkPad® T15 Gen 2](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^{[1][2]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>
2. No base warranty is for special bid only.

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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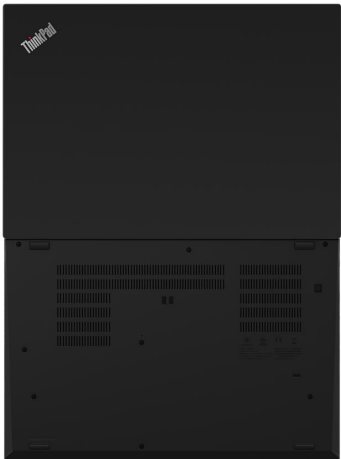
intel



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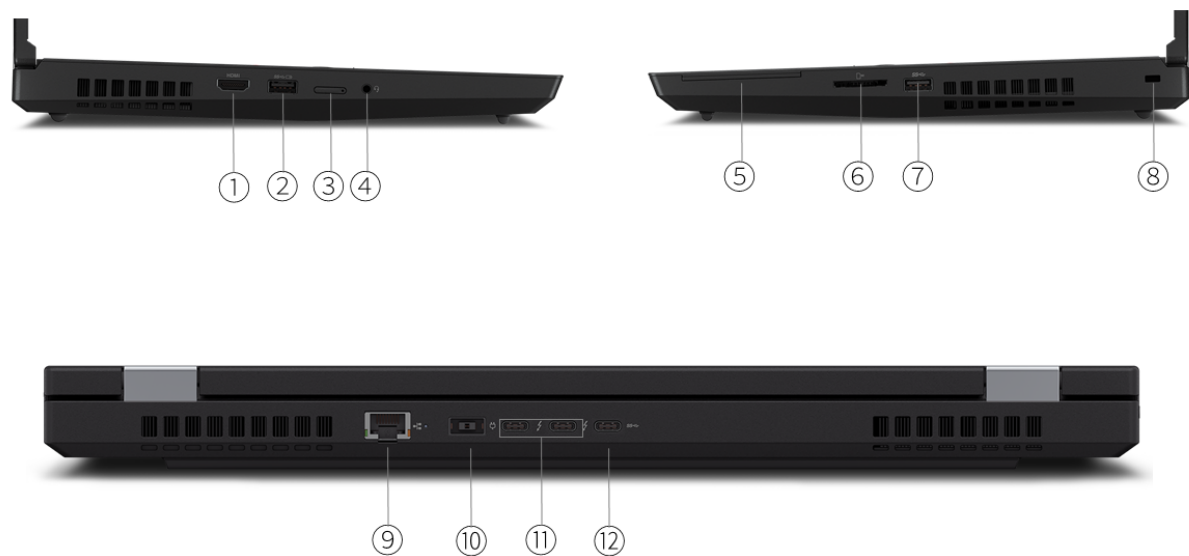


intel



intel

OVERVIEW



1. HDMI 2.1 / 2.0	7. USB 3.2 Gen 1
2. USB 3.2 Gen 1 (Always On)	8. Kensington Security Slot
3. Nano-SIM card slot *	9. 2.5GbE (RJ-45)
4. Headphone / microphone combo jack (3.5mm)	10. Power connector
5. Smart card reader *	11. 2x Thunderbolt 4
6. SD card reader	12. USB-C 3.2 Gen 2

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 / i9 or Intel Xeon® Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-11500H	6	12	2.9GHz	4.6GHz	12MB	DDR4-3200	Intel UHD Graphics
Core i7-11800H	8	16	2.3GHz	4.6GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i7-11850H	8	16	2.5GHz	4.8GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i9-11950H	8	16	2.6GHz	5.0GHz	24MB	DDR4-3200	Intel UHD Graphics
Xeon W-11855M	6	12	3.2GHz	4.9GHz	18MB	DDR4-3200	Intel UHD Graphics
Xeon W-11955M	8	16	2.6GHz	5.0GHz	24MB	DDR4-3200	Intel UHD Graphics

Operating System

Operating System**^[1]

- Windows® 11 Pro 64
- Windows 11 Pro 64 for Workstations
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Windows 10 Home 64
- Fedora Linux
- Ubuntu Linux LTS
- Red Hat Enterprise Linux (certified only)

Notes:

1. As preloaded OS, Fedora and Ubuntu Linux will be available in October 2021

Graphics

Graphics**

Graphics	Type	Memory	TGP	Key Features
NVIDIA® GeForce RTX™ 3070 Laptop GPU	Discrete	8GB GDDR6	90W	Resizable BAR, Dynamic Boost 2.0, DirectX® 12
NVIDIA GeForce RTX 3080 Laptop GPU	Discrete	16GB GDDR6	90W	Resizable BAR, Dynamic Boost 2.0, DirectX 12

Monitor Support

Monitor Support

Supports up to 5 independent displays (native display and 4 external monitors via HDMI®, USB-C®, or Thunderbolt™) on hybrid mode only

- HDMI supports up to 4K@60Hz on NVIDIA T1200, 8K@60Hz on other discrete graphics
- USB-C up to 5120x3200@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel WM590 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-3200

Memory Slots

Four DDR4 SO-DIMM slots, dual-channel capable

Memory Type**

- DDR4-3200 ECC
- DDR4-3200 non-ECC

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to three drives, 3x M.2 SSD

- M.2 2280 SSD up to 2TB

Storage Slot^[2]

Three M.2 slots

- Two M.2 2280 PCIe® Gen 3x4 slots, support M.2 2280 SSD
- One M.2 2280 PCIe Gen 4x4 slot, supports M.2 2280 SSD

Storage Type***

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	256GB / 512GB / 1TB	Opal2

RAID^[3]

RAID 0/1 support on two M.2 PCIe Gen 3x4 slots

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. M.2 PCIe Gen 4 SSD in a M.2 PCIe Gen 3 slot runs at PCIe Gen 3 speeds
3. Opal capability is not available in RAID mode.

Removable Storage

Optical

None

Card Reader

SD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, Dolby® Atmos®

Microphone

- Dual array microphone, far-field
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 94Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life^[1]

MobileMark® 2018: 7 hr
JEITA 2.0: 11 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**[1]

- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	100% sRGB	170°	-
15.6"	FHD (1920x1080)	None	IPS	500 nits	Anti-glare	16:9	1200:1	100% sRGB	170°	Dolby Vision™
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1200:1	100% Adobe® RGB	170°	Dolby Vision, DisplayHDR™ 400
15.6"	UHD (3840x2160)	Multi-touch	OLED	SDR 400nits, HDR 500nits (peak)	Anti-reflection Anti-smudge	16:9	100000:1	100% DCI-P3	170°	Dolby Vision, HDR 500 True Black

Color Calibration

- X-Rite® Pantone® factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

2. For non-OLED display, HDR is only supported under hybrid mode.

Input Device

Pen

- Lenovo Pen Pro
- No pen (pen sold separately)
- No support (non-touch display doesn't support pen input)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

LED backlight

UltraNav™

3-button TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Touch models	375.4 x 252.3 x 25.25-32.2 mm (14.24 x 9.67 x 0.99-1.27 inches)
Non-touch models	375.4 x 252.3 x 24.5-31.45 mm (14.24 x 9.67 x 0.96-1.24 inches)

Weight

Models	Weight
Non-touch models	2.87 kg (6.32 lbs)
Touch models	3.07 kg (6.75 lbs)

Case Color

Black

Case Material

PPS / 50% GF (top), PA / 50% GF (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- 2.5GbE, Intel Ethernet Connection I225-LM (vPro models), supports Wake-on-LAN
- 2.5GbE, Intel Ethernet Connection I225-V (non-vPro models), supports Wake-on-LAN

WLAN + Bluetooth^{[1][2]}

- Intel Wi-Fi® 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM160R, 4G LTE CAT16, MIMO 4x4, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

2. 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4a)
- 1x HDMI, up to 8K/60Hz
- 1x SD card reader
- 1x Ethernet (2.5GbE RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® T15g Gen 2](#)

Monitor Cable**Monitor Cable*****

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip****

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY**System Management****System Management^[1]**

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

ISV Certifications

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	6. Kensington Security Slot
2. SD card reader	7. Power connector
3. HDMI 2.0	8. Thunderbolt 4
4. 2x USB 3.2 Gen 1	9. Smart card reader *
5. Ethernet (RJ-45)	

- Notes:
- Ports with * are only available on selected models
 - Nano-SIM card slot on the rear side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-11400H	6	12	2.7GHz	4.5GHz	12MB	DDR4-3200	Intel UHD Graphics
Core i5-11500H	6	12	2.9GHz	4.6GHz	12MB	DDR4-3200	Intel UHD Graphics
Core i7-11800H	8	16	2.3GHz	4.6GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i7-11850H	8	16	2.5GHz	4.8GHz	24MB	DDR4-3200	Intel UHD Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Ubuntu Linux LTS
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce GTX 1650 Laptop GPU	Discrete	4GB GDDR6	DirectX 12

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 4K@60Hz
- Thunderbolt supports up to 5K@60Hz

Chipset

Chipset

Intel WM590 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200 non-ECC

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 2x M.2 SSD

- M.2 2280 SSD up to 2TB

Storage Slot

Two M.2 slots

- Two M.2 2280 PCIe® Gen 3x4 slots, support M.2 2280 SSD

Storage Type***

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	256GB / 512GB / 1TB	Opal2

RAID^[2]

RAID 0/1 support

- Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
 2. Opal capability is not available in RAID mode.

Removable Storage

Optical

None

Card Reader

SD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, Dolby® Audio™

Microphone

- Dual array microphone, near-field
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 68Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life^[1]

MobileMark® 2018: 10 hr
JEITA 2.0: 10.6 hr

- Notes:
1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^[1]

135W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°	-
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	170°	Dolby Vision™, DisplayHDR™ 400, DC dimming

Touchscreen

- On-cell touch, supports 10-point touch (FHD models only)
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

3-button TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical[1]

Dimensions (WxDxH)

366.5 x 250 x 22.7 mm (14.43 x 9.84 x 0.89 inches)

Weight

2.07 kg (4.56 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), supports Wake-on-LAN

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), supports Wake-on-LAN

WLAN + Bluetooth[®]^{[1][2]}

Intel Wi-Fi[®] 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN^{}**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]**Standard Ports**

- 2x USB 3.2 Gen 1 (one Always On)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x SD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{*}**

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via Thunderbolt or USB-C[®].

For more compatible docking solutions, please visit [Docking for ThinkPad[®] T15p Gen 2](#)

Monitor Cable**Monitor Cable^{***}**

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip^{**}**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{[1]}**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

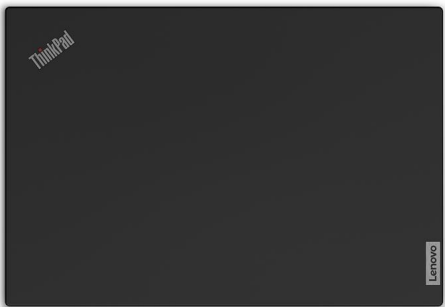
MIL-STD-810H military test passed

ISV Certifications

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	6. Kensington Security Slot
2. SD card reader	7. Power connector
3. HDMI	8. Thunderbolt 4
4. 2x USB 3.2 Gen 1	9. Smart card reader *
5. Ethernet (RJ-45)	

- Notes:
- Ports with * are only available on selected models
 - Nano-SIM card slot on the rear side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

12th Generation H series Intel® Core™ i7 processor, supports processors up to 14 cores; up to 4.8 GHz

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i7-12700H	14 (6 P-core + 8 E-core)	20	P-core 2.3GHz / E-core 1.7GHz	P-core 4.7GHz / E-core 3.5GHz	24MB	DDR5-4800	Intel Iris® Xe Graphics
Core i7-12800H	14 (6 P-core + 8 E-core)	20	P-core 2.4GHz / E-core 1.8GHz	P-core 4.8GHz / E-core 3.7GHz	24MB	DDR5-4800	Intel Iris Xe Graphics

Operating System

Operating System

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Graphics

Graphics	Type	Memory	TGP	Key Features
NVIDIA® GeForce RTX™ 3050 Laptop GPU	Discrete	4GB GDDR6	35W	Resizable BAR, Dynamic Boost 2.0, DirectX® 12

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz
- Thunderbolt supports up to 5120x3200@60Hz (Thunderbolt or USB-C® to DP)

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 64GB DDR5-4800

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type

DDR5-4800 non-ECC

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 2x M.2 SSD

- M.2 2280 SSD up to 4TB, 2TB each
- RAID 0/1 support

Storage Slot

- Two M.2 slots
- Two M.2 2280 PCIe® Gen 4x4 slots, support M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	256GB / 512GB / 1TB	Opal2

RAID

RAID 0/1 support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

SD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

- Dual array microphone, far-field, Dolby Voice
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 68Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Power Adapter

Power Adapter^[1]

135W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°	DC dimming
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming

15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	DC dimming
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	170°	Dolby Vision™, DisplayHDR™ 400, DC dimming

Touchscreen

- On-cell touch, supports 10-point touch (FHD models only)
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

3-button TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

366.5 x 250 x 22.7 mm (14.43 x 9.84 x 0.89 inches)

Weight

Models	Weight
Model with discrete graphics	Starting at 2.226 kg (4.91 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

Notes:

- The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^{**}

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth^[1]

Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN^{**}

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, MIMO 4x4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 1x Thunderbolt 4 / USB 4 40Gbps (support data transfer, Power Delivery 3.0, and DisplayPort™ 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x SD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt, USB-C, or USB-A.

For more compatible docking solutions, please visit [Docking for ThinkPad® T15p Gen 3](#)

Monitor Cable

Monitor Cable

- (Optional) Lenovo USB-C to DisplayPort Adapter
- (Optional) Lenovo HDMI to VGA Monitor Adapter
- (Optional) Lenovo USB-C to VGA Adapter

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter

- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management

- Intel vPro Enterprise
- Non-vPro

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

90% recycled / sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

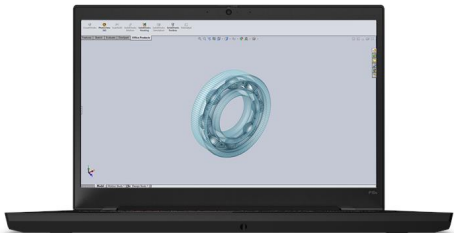
MIL-STD-810H military test passed

ISV Certifications

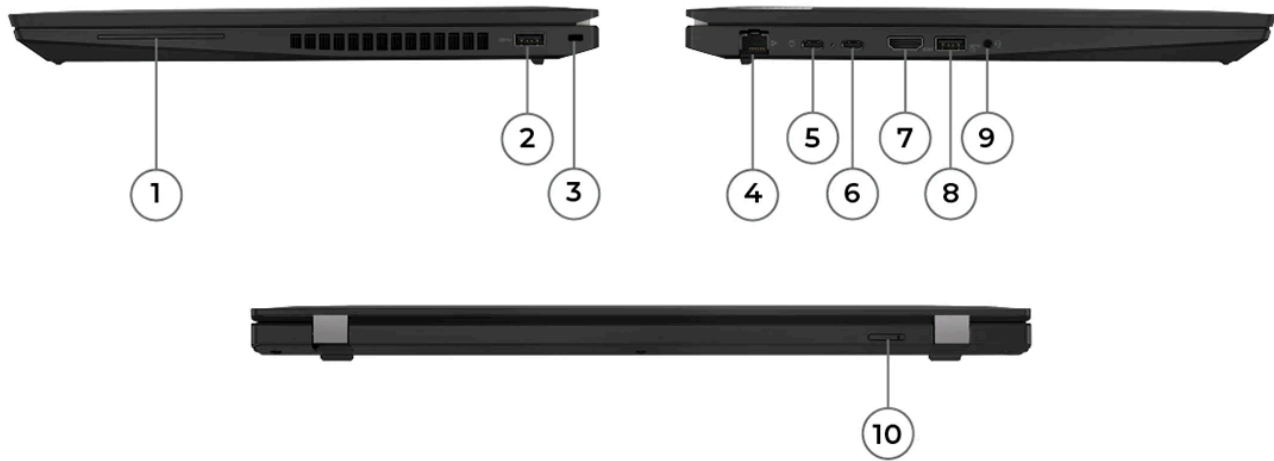
ISV Certifications

Please visit [ISV certifications for Lenovo Workstations](#)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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- The specifications on this page may not be available in all regions, and may be changed or updated without notice.



OVERVIEW



1. Smart card reader *	6. USB-C 3.2 Gen 2
2. USB 3.2 Gen 1	7. HDMI
3. Kensington Nano Security Slot	8. USB 3.2 Gen 1 (Always On)
4. Ethernet (RJ-45)	9. Headphone / microphone combo jack (3.5mm)
5. USB-C 3.2 Gen 2	10. Nano-SIM card slot *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 5 PRO 6650U	6	12	2.9GHz	4.5GHz	3MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon™ 660M Graphics
AMD Ryzen 7 PRO 6850U	8	16	2.7GHz	4.7GHz	4MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon 680M Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
AMD Radeon 660M	Integrated	Shared	DirectX® 12
AMD Radeon 680M	Integrated	Shared	DirectX 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4K@60Hz
- USB-C supports up to 4K@60Hz (4 displays output), 5K@60Hz (3 displays output) or 5K@120Hz (up to 2 displays output)

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR5-6400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2242/2280 SSD

Storage Type**

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone^[1]

- Dual array microphone, far-field, Dolby Voice
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Notes:

1. No microphone is for special bid only.

Battery

Battery**

- Integrated Li-Polymer 52.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Integrated Li-Polymer 86Wh battery

Battery Life^[1]

Configuration 1 (max battery life)

MobileMark® 2018: up to 24.4 hr with 629 performance score @200nits

MobileMark 25: up to 23.2 hr with 532 performance score @250nits

JEITA 2.0: up to 35.0 hr @150nits

Local video playback: up to 29.7 hr @150nits

Alternate configuration 2

MobileMark 2018: up to 11.1 hr with 795 performance score @200nits

MobileMark 25: up to 11.4 hr with 535 performance score @250nits

JEITA 2.0: up to 18.3 hr @150nits

Local video playback: up to 16.2 hr @150nits

Alternate configuration 3

MobileMark 2018: up to 12.1 hr with 687 performance score @200nits

MobileMark 25: up to 11.3 hr with 542 performance score @250nits

JEITA 2.0: up to 15.5 hr @150nits

Local video playback: up to 14.0 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA Low Power (non-touch), AMD Ryzen 7 PRO 6850U, 16GB LPDDR5, Win 10, 86Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (touch), AMD Ryzen 5 PRO 6650U, 16GB LPDDR5, Win 10, 52.5Wh battery, best power efficiency power mode
Alternate configuration 3: WQXGA (non-touch), AMD Ryzen 5 PRO 6650U, 32GB LPDDR5, Win 10, 52.5Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**[1][2]

- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 100W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

- AC adapter offerings depend on the country.
- No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
16.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	800:1	45% NTSC	170°	-
16.0"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, Eyesafe® Certified
16.0"	WUXGA (1920x1200)	Multi-Touch	IPS	300 nits	Anti-glare	16:10	800:1	45% NTSC	170°	-
16.0"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	ThinkPad® Privacy Guard
16.0"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Dolby Vision™, TÜV Rheinland® Low Blue Light

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight

- Non-backlight
- UltraNav™**
- TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 67.7 x 115 mm (2.67 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

361.9 x 255.5 x 20.5 mm (14.25 x 10.06 x 0.81 inches)

Weight

Models	Weight
Storm grey models	Starting at 1.68 kg (3.70 lbs)
Thunder black models	Starting at 1.65 kg (3.64 lbs)

Case Color**

- Storm grey
- Thunder black

Case Material**

- Thunder black models: PC 50% GF + PC 20% CF (top), PPS (bottom)
- Storm grey models: aluminium (top), PPS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Realtek RTL8111HN (non-DASH models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Realtek RTL8111EPV (DASH models), 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**^{[1][2]}

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® NFA-725A Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

2. Wi-Fi 6E full features might be limited by country level restrictions.

Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.

6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI, up to 4K/60Hz

- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad T16 Gen 1 \(AMD\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified, with Microsoft Pluton TPM 2.0 integrated in SoC

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader^[1]

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- Mirametrix Glance

Notes:

1. Fingerprint reader is standard on storm grey models and optional on thunder black models.

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty**^{[1][2]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>
2. No base warranty is for special bid only.

ENVIRONMENTAL

Sustainability

Material

97% PCC recycled plastic used in speaker enclosure
97% PCC recycled plastic used in the 52.5Wh battery
25-30% in the 86Wh
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

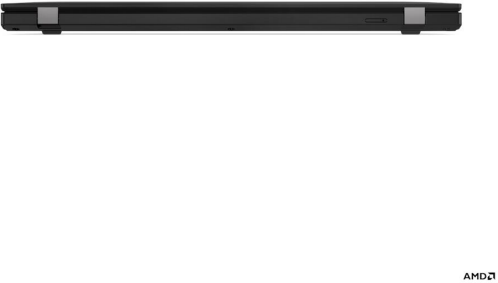
Mil-Spec Test

MIL-STD-810H military test passed

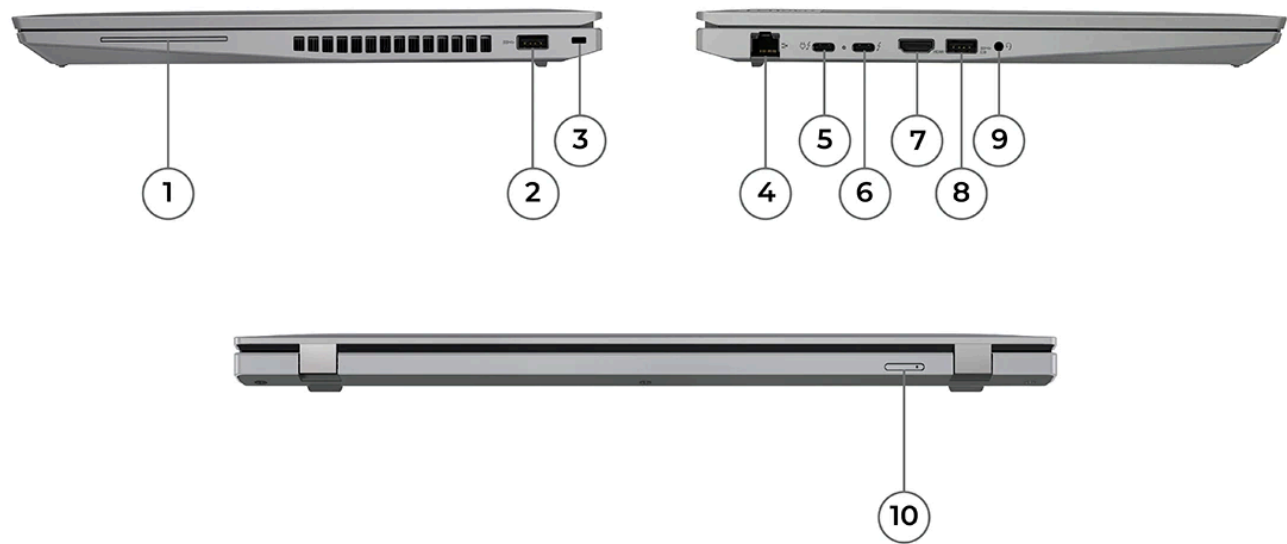
Other Certifications

- (Optional) Eyesafe Certified
- (Optional) TÜV Rheinland Low Blue Light

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Smart card reader *	6. Thunderbolt 4
2. USB 3.2 Gen 1	7. HDMI
3. Kensington Nano Security Slot	8. USB 3.2 Gen 1 (Always On)
4. Ethernet (RJ-45)	9. Headphone / microphone combo jack (3.5mm)
5. Thunderbolt 4	10. Nano-SIM card slot *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i5 / i7 Processor

Processor**^[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1245U	10 (2 P-core + 8 E-core)	12	P-core 1.6GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1265U	10 (2 P-core + 8 E-core)	12	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i5-1250P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1270P	12 (4 P-core + 8 E-core)	16	P-core 2.2GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.5GHz	18MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1280P	14 (6 P-core + 8 E-core)	20	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	24MB	DDR4-3200	Intel Iris Xe Graphics

Notes:

1. i7-1280P is special bid only in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**^[1]

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12.1
NVIDIA® GeForce MX550	Discrete	2GB GDDR6	DirectX 12

Notes:

1. Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual-channel memory. On the system with Intel Core i5 or i7 processor and single-channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics. NVIDIA GeForce RTX™ 2050 is NOT available in EMEA.

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz

- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2242/2280 SSD

Storage Type^{**[2]}

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. PCIe x4 SSD may be PCIe 3.0x4 or PCIe 4.0x4 as substitution.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone^[1]

- Dual array microphone, far-field, Dolby Voice
- No microphone

Camera^{**[2]}

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus

- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Notes:

1. No microphone is for special bid only.
2. Only 720p and IR & 1080p hybrid are available in EMEA.

Battery

Battery**

- Integrated Li-Polymer 52.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W or 135W AC adapter
- Integrated Li-Polymer 86Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 135W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)

MobileMark® 2018: up to 10.1 hr with 786 performance score @200nits

MobileMark 25: up to 8.5 hr with 617 performance score @250nits

JEITA 2.0: up to 17.1 hr @150nits

Local video playback: up to 16.5 hr @150nits

Alternate configuration 2

MobileMark 2018: up to 9.4 hr with 911 performance score @200nits

MobileMark 25: up to 6.6 hr with 655 performance score @250nits

JEITA 2.0: up to 12.0 hr @150nits

Local video playback: up to 10.1 hr @150nits

Alternate configuration 3

MobileMark 2018: up to 7.5 hr with 1101 performance score @200nits

MobileMark 25: up to 5.0 hr with 722 performance score @250nits

JEITA 2.0: up to 8.6 hr @150nits

Local video playback: up to 7.4 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA (non-touch), Intel i5-1240P, 8GB soldered, Win 11, 52.5Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (touch), Intel i5-1250P, 16GB (8GB soldered + 8GB SO-DIMM), Win 11, 52.5Wh battery, best power efficiency power mode
Alternate configuration 3: WQXGA, Intel i7-1280P, 32GB (16GB soldered + 16GB SO-DIMM), NVIDIA GeForce MX550, Win 11, 52.5Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.

Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.

The maximum capacity of the battery will decrease with time, ambient temperature and use.

Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 135W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. 45W USB-C AC adapter is ONLY available for the models with integrated graphics.
45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA.
No power adapter is for special bid only.

DESIGN

Display

Display**^{[1][2]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
16.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	800:1	45% NTSC	170°	-
16.0"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, Eyesafe® Certified, ICC Template color calibration
16.0"	WUXGA (1920x1200)	Multi-Touch	IPS	300 nits	Anti-glare	16:10	800:1	45% NTSC	170°	-
16.0"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	ThinkPad® Privacy Guard
16.0"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Eyesafe Certified, ICC Template color calibration

Color Calibration

- ICC Template color calibration
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- WUXGA 400nit Low Power display is NOT available in EMEA.

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 67.7 x 115 mm (2.67 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Discrete graphics models	361.9 x 255.5 x 21.1 mm (14.25 x 10.06 x 0.83 inches)
Integrated graphics models	361.9 x 255.5 x 20.5 mm (14.25 x 10.06 x 0.81 inches)

Weight

Models	Weight
Storm grey models	Starting at 1.68 kg (3.70 lbs)
Thunder black models	Starting at 1.65 kg (3.64 lbs)

Case Color**^[2]

- Storm grey
- Thunder black

Case Material**

- Thunder black models: PC 50% GF + PC 20% CF (top), PPS (bottom)
- Storm grey models: aluminium (top), PPS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Storm grey cover is ONLY available for the models with integrated graphics.
Storm grey cover is ONLY available with backlit keyboard.
Storm grey cover is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet^{}**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth^{®[1][2]}**

- Intel Wi-Fi[®] 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm[®] NFA-725A Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN^{[3]}**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC^[4]

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
3. Wireless WAN upgradable to 4G is ONLY available in EMEA.
Fibocom L860-GL CAT16 is special bid only in EMEA.
4. NFC is NOT available for storm grey models.
NFC is special bid only in EMEA.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4[®] 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort[™] 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{*}**

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;

Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad T16 Gen 1 \(Intel\)](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader^[1]

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Firmware Resiliency 3.0

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- Human Presence Detection (software)
- Mirametrix Glance

Notes:

1. Fingerprint reader is standard on storm grey models and optional on thunder black models.

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Enterprise
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^{[1][2]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>
2. No base warranty is for special bid only.

ENVIRONMENTAL

Sustainability

Material

97% PCC recycled plastic used in speaker enclosure
97% PCC recycled plastic used in the 52.5Wh battery
25-30% in the 86Wh
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

(Optional) Eyesafe Certified

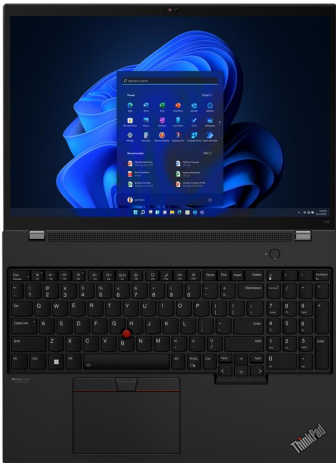
- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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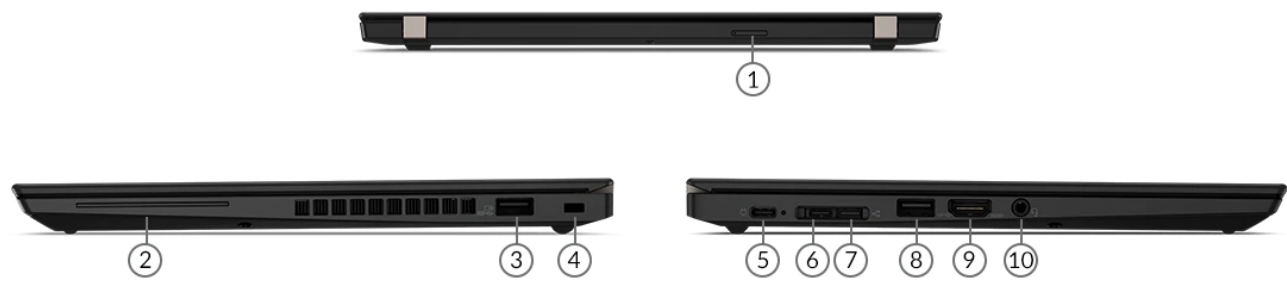


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OVERVIEW



1. Card slot	6. USB-C 3.2 Gen 2
2. Smart card reader *	7. Ethernet extension connector
3. USB 3.2 Gen 1 (Always On)	8. USB 3.2 Gen 1
4. Kensington Security Slot	9. HDMI 2.0
5. USB-C 3.2 Gen 2	10. Headphone / microphone combo jack (3.5mm)

Notes:

- Ports with * are only available on selected models
- Card slot is for microSD card (WLAN model) or nano-SIM + microSD card (WWAN model)
- The combination of 6 and 7 is side docking connector

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 4450U	4	8	2.5GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 PRO 4650U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 4750U	8	16	1.7GHz	4.1GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4K@60Hz
- USB-C supports up to 5K@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 512GB M.2 2242 SSD or 1TB M.2 2280 SSD

Storage Type**

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader**

- MicroSD card slot (WLAN model)
- Nano-SIM + microSD card slot (WWAN model)

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera**

- HD 720p, with ThinkShutter, fixed focus
- IR & HD 720p hybrid, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 48Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2014: 12.8 hr

MobileMark 2018: 10.35 hr

JEITA 2.0: 13.9 hr

Notes:

- 1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

- No power adapter

Notes:

- AC adapter offerings depend on the country.
- No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	HD (1366x768)	None	TN	250 nits	Anti-glare	16:9	300:1	45% NTSC	90°	-
13.3"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	72% NTSC	170°	-
13.3"	FHD (1920x1080)	None	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	170°	-

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical[1]

Dimensions (WxDxH)

311.9 x 217.2 x 16.9 mm (12.28 x 8.55 x 0.67 inches)

Weight

Models	Weight
FHD touch models	Starting at 1.28 kg (2.84 lbs)
HD / FHD non-touch / FHD Privacy Guard models	Starting at 1.29 kg (2.85 lbs)

Case Color

Black

Case Material

PPS / GF (top), magnesium-aluminium (keyboard cover & bottom)

Notes:

- The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111EPV, 1x RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2, supports Wake-on-LAN

WLAN + Bluetooth[®]**^{[1][2]}

- Wi-Fi[®] 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel[®] Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

WWAN^{**}^[3]

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L850-GL, 4G LTE CAT9, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.
3. For non-WWAN model, it means the model is NOT WWAN upgradable.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x Ethernet extension connector
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports^{***}

- 1x Smart card reader
- 1x Nano-SIM & microSD card slot (WWAN support models)
- 1x microSD card slot (WLAN model)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
 - USB 2.0: 480 Mbit/s;
 - USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
 - USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
 - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
 - Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via side docking connector or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad X13 Gen 1 \(AMD\)](#)

Monitor Cable

Monitor Cable^{***}

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

System Management

DASH

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

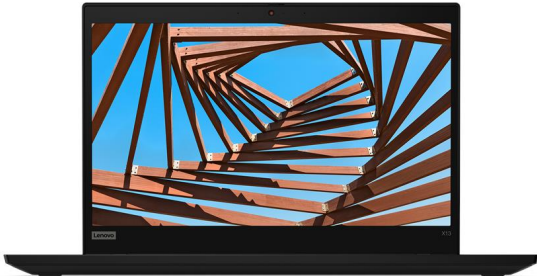
Mil-Spec Test

MIL-STD-810G military test passed

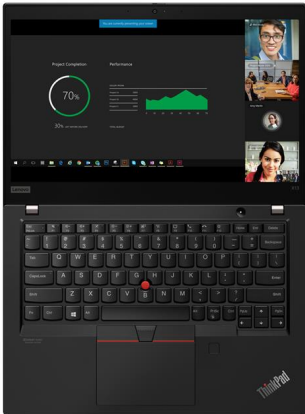
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AMD



AMD



AMD



AMD

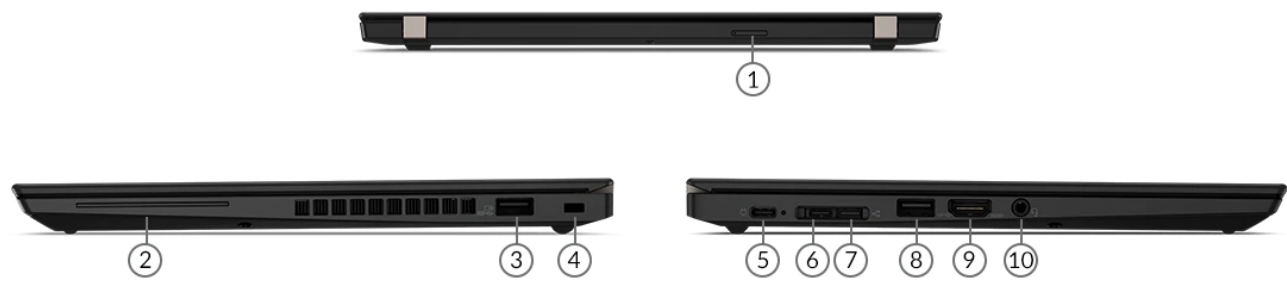


AMD



AMD

OVERVIEW



1. Nano-SIM card slot *	6. USB-C 3.2 Gen 2
2. Smart card reader *	7. Ethernet extension connector *
3. USB 3.2 Gen 1 (Always On)	8. USB 3.2 Gen 1
4. Kensington Nano Security Slot	9. HDMI 2.0
5. USB-C 3.2 Gen 2	10. Headphone / microphone combo jack (3.5mm)

- Notes:
- Ports with * are only available on selected models
 - The combination of 6 and 7 is side docking connector

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 5450U	4	8	2.6GHz	4.0GHz	2MB L2 / 8MB L3	LPDDR4-4266	AMD Radeon™ Graphics
AMD Ryzen 5 5600U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	LPDDR4-4266	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	LPDDR4-4266	AMD Radeon Graphics
AMD Ryzen 7 5800U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5850U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	LPDDR4-4266	AMD Radeon Graphics

Notes:
1. Ryzen 5 5600U is NOT available in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise LTSC
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4K@60Hz
- USB-C supports up to 5K@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR4x-4266

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 256GB M.2 2242 SSD or 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type^{**[2]}

Disk Type	Interface	RPM	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x4	-	128GB / 256GB	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	256GB / 512GB / 1TB	Opal2

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
- 2. The SSD with PCI 4.0x4 performance is downgraded to closer to PCIe 3.0x4 performance due to the system slot limitation.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone with 360° noise-cancelling, far-field
- No microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery^{**}

- Integrated Li-Polymer 41Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
- Integrated Li-Polymer 54.7Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

- Model with 41Wh battery:
MobileMark® 2018: 10.7 hr
JEITA 2.0: 13.5 hr
- Model with 54.7Wh battery:
MobileMark 2018: 15.4 hr
JEITA 2.0: 18.1 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- Power Adapter**^{[1][2]}
- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
 - No power adapter

Notes:

1. AC adapter offerings depend on the country.

2. No power adapter is for special bid only.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-
13.3"	WUXGA (1920x1200)	None	IPS	500 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-
13.3"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Low power, low blue light

- Touchscreen
- On-cell touch, supports 10-point touch
 - Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight^[1]

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Notes:

1. Non-backlit keyboard is only available for the models with black cover.

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Models with aluminium top cover	305.8 x 217.89 x 18.06 mm (12.04 x 8.58 x 0.71 inches)
Models with carbon fiber top cover	305.8 x 217.39 x 18.97 mm (12.04 x 8.56 x 0.75 inches)
Models with PPS top cover	305.8 x 217.06 x 18.19 mm (12.04 x 8.55 x 0.72 inches)

Weight

Models	Weight
Models with WQXGA display, 41Wh battery, and black PPS top cover	Starting at 1.21 kg (2.67 lbs)
Models with WQXGA display, 41Wh battery, and storm grey top cover	Starting at 1.28 kg (2.82 lbs)
Models with WQXGA display, 54.7Wh battery, and black PPS top cover	Starting at 1.26 kg (2.78 lbs)
Models with WQXGA display, 54.7Wh battery, and storm grey top cover	Starting at 1.34 kg (2.94 lbs)
Models with WUXGA display, 41Wh battery, and black carbon fiber top cover	Starting at 1.19 kg (2.62 lbs)
Models with WUXGA display, 41Wh battery, and black PPS top cover	Starting at 1.25 kg (2.77 lbs)
Models with WUXGA display, 41Wh battery, and storm grey top cover	Starting at 1.33 kg (2.93 lbs)
Models with WUXGA display, 54.7Wh battery, and black carbon fiber top cover	Starting at 1.26 kg (2.77 lbs)
Models with WUXGA display, 54.7Wh battery, and black PPS top cover	Starting at 1.31 kg (2.88 lbs)
Models with WUXGA display, 54.7Wh battery, and storm grey top cover	Starting at 1.38 kg (3.04 lbs)

Case Color**

- Storm grey
- Villi black

Case Material**

- Villi black models: carbon fiber or PPS (top), magnesium (keyboard cover), aluminium (bottom)
- Storm grey & WWAN models: aluminium (top), magnesium (keyboard cover), aluminium (bottom)
- Storm grey & non-WWAN models: aluminium (top), aluminium (keyboard cover & bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Realtek RTL8111EPV, 1x RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2, supports Wake-on-LAN
- No Ethernet

WLAN + Bluetooth®**[1][2]

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® QCNFA765, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- Qualcomm Snapdragon™ X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC^[3]

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
3. NFC is NOT available for the models with storm grey cover.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports^{*[2]}**

- 1x Ethernet extension connector
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. If your computer has Ethernet icon, it supports wired Ethernet connection with ThinkPad Ethernet Extension Adapter or ThinkPad Basic/Pro/Ultra Docking Station.
If your computer does not have Ethernet icon, the Ethernet connector does not support Ethernet connection. We recommend you use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.

Docking**Docking**

Various docking solutions supported via side docking connector or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad X13 Gen 2 \(AMD\)](#)

Monitor Cable**Monitor Cable^{***}**

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to Ethernet Adapter
- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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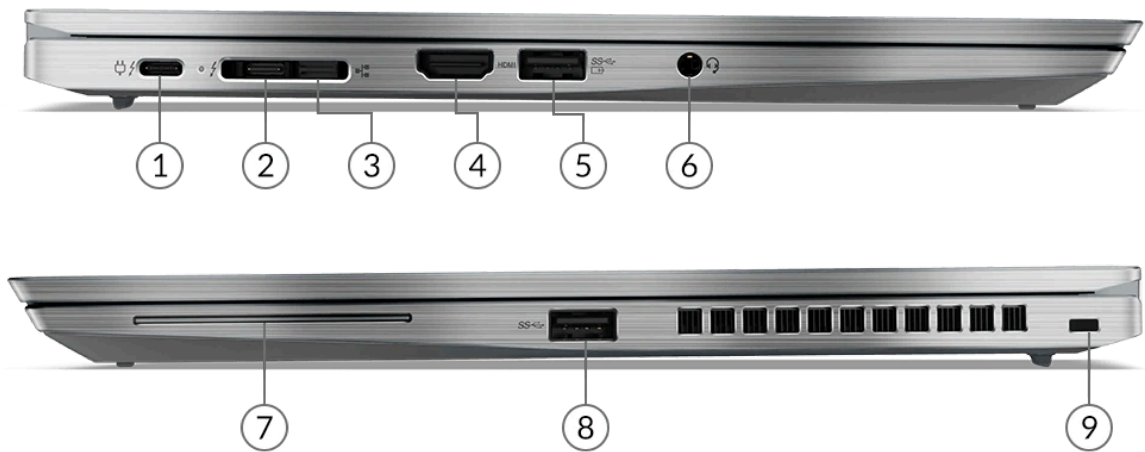


AMD



AMD

OVERVIEW



1. Thunderbolt 4	6. Headphone / microphone combo jack (3.5mm)
2. Thunderbolt 4	7. Smart card reader *
3. Ethernet extension connector *	8. USB 3.2 Gen 1
4. HDMI 2.0	9. Kensington Nano Security Slot
5. USB 3.2 Gen 1 (Always On)	

- Notes:
- Ports with * are only available on selected models
 - Optional nano-SIM card slot on the rear side (not shown on the sample product above)
 - The combination of 2 and 3 is side docking connector

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	LPDDR4x-3733	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise LTSC
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12.1

Notes:

1. Intel Iris Xe Graphics is not available for Intel Core i3 models.

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type^[2]

LPDDR4x-4266

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
- 2. Installed memory is actually 4266MHz, but may run at 3733MHz depending on the memory support capability of processor.

Storage

Storage Support^[1]

One drive, up to 256GB M.2 2242 SSD or 2TB M.2 2280 SSD

Storage Type**

Disk Type	Interface	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	Opal2
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	Opal2

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery**

- Integrated Li-Polymer 41Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
- Integrated Li-Polymer 54.7Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

- Model with 41Wh battery:
MobileMark® 2018: 10.5 hr
JEITA 2.0: 16.5 hr
- Model with 54.7Wh battery:
MobileMark 2018: 14.5 hr
JEITA 2.0: 22.2 hr

Notes:

- 1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0,

continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**[1][2]

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

- Notes:
1. AC adapter offerings depend on the country.
 2. No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-
13.3"	WUXGA (1920x1200)	None	IPS	500 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-
13.3"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Low power, low blue light

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

- Notes:
1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical[1]

Dimensions (WxDxH)

Models	Dimensions
Models with aluminium top cover	305.8 x 217.89 x 18.06 mm (12.04 x 8.58 x 0.71 inches)

Models with carbon fiber top cover	305.8 x 217.39 x 18.97 mm (12.04 x 8.56 x 0.75 inches)
Models with PPS top cover	305.8 x 217.06 x 18.19 mm (12.04 x 8.55 x 0.72 inches)

Weight

Models	Weight
Models with WQXGA display, 41Wh battery, and black PPS top cover	Starting at 1.21 kg (2.67 lbs)
Models with WQXGA display, 41Wh battery, and storm grey top cover	Starting at 1.28 kg (2.82 lbs)
Models with WQXGA display, 54.7Wh battery, and black PPS top cover	Starting at 1.26 kg (2.78 lbs)
Models with WQXGA display, 54.7Wh battery, and storm grey top cover	Starting at 1.34 kg (2.94 lbs)
Models with WUXGA display, 41Wh battery, and black carbon fiber top cover	Starting at 1.19 kg (2.62 lbs)
Models with WUXGA display, 41Wh battery, and black PPS top cover	Starting at 1.25 kg (2.77 lbs)
Models with WUXGA display, 41Wh battery, and storm grey top cover	Starting at 1.33 kg (2.93 lbs)
Models with WUXGA display, 54.7Wh battery, and black carbon fiber top cover	Starting at 1.26 kg (2.77 lbs)
Models with WUXGA display, 54.7Wh battery, and black PPS top cover	Starting at 1.31 kg (2.88 lbs)
Models with WUXGA display, 54.7Wh battery, and storm grey top cover	Starting at 1.38 kg (3.04 lbs)

Case Color**

- Storm grey
- Villi black

Case Material**

- Villi black models: carbon fiber or PPS (top), magnesium (keyboard cover), aluminium (bottom)
- Storm grey & WWAN models: aluminium (top), magnesium (keyboard cover), aluminium (bottom)
- Storm grey & non-WWAN models: aluminium (top), aluminium (keyboard cover & bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet***

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), 1x RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2, supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), 1x RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2, supports Wake-on-LAN
- No Ethernet

WLAN + Bluetooth®**^{[1][2]}

- Intel Wi-Fi® 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- Qualcomm® Snapdragon™ X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{*[2]}**

- 1x Ethernet extension connector
- 1x Side docking connector (Ethernet model only)
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s
2. Ethernet and side docking connector are coexisting. On some models, both of them are equipped. On some models, neither of them is equipped.
If your computer has Ethernet icon, it supports wired Ethernet connection with ThinkPad Ethernet Extension Adapter or ThinkPad Basic/Pro/Ultra Docking Station.
If your computer does not have Ethernet icon, the Ethernet connector does not support Ethernet connection. We recommend you use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.

Docking**Docking**

Various docking solutions supported via side docking connector (optional) or Thunderbolt.
For more compatible docking solutions, please visit [Docking for ThinkPad X13 Gen 2 \(Intel\)](#)

Monitor Cable**Monitor Cable^{***}**

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Human Presence Detection

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{[1]}**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories^{*}**

- Lenovo USB-C to Ethernet Adapter

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications^[1]

(Optional) Intel Evo™ Platform

Notes:

1. Intel Evo is NOT available for the models with i3 processor, 41Wh battery, or 128GB storage.

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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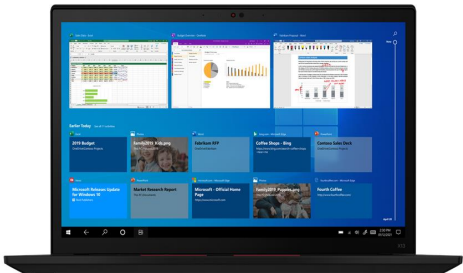
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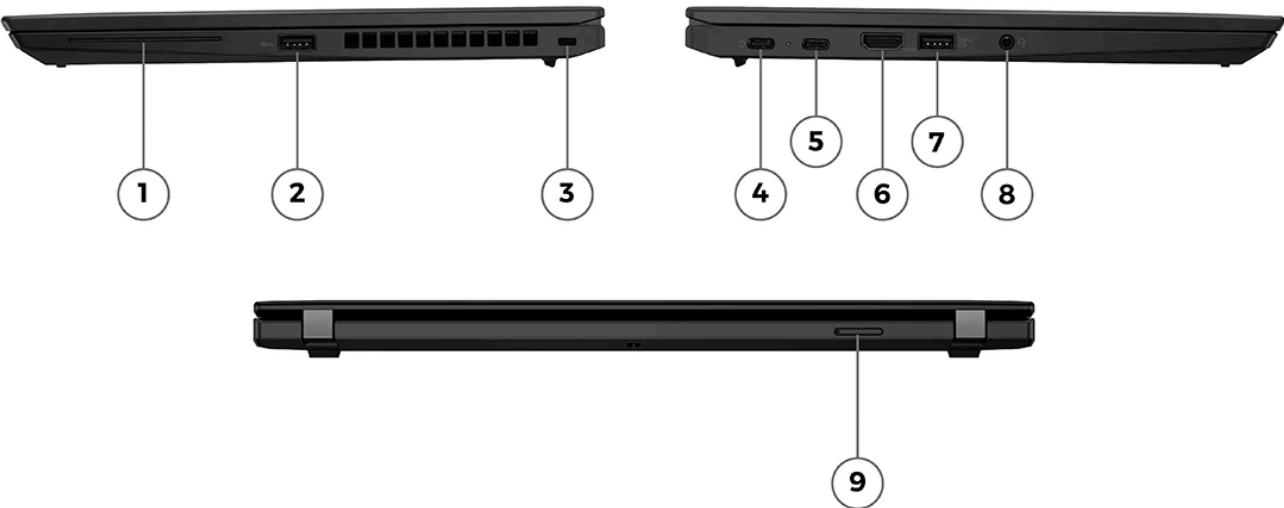


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OVERVIEW



1. Smart card reader *	6. HDMI
2. USB 3.2 Gen 1	7. USB 3.2 Gen 1 (Always On)
3. Kensington Nano Security Slot	8. Headphone / microphone combo jack (3.5mm)
4. USB4	9. Nano-SIM card slot *
5. USB-C 3.2 Gen 2	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 5 PRO 6650U	6	12	2.9GHz	4.5GHz	3MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon™ 660M Graphics
AMD Ryzen 7 PRO 6850U	8	16	2.7GHz	4.7GHz	4MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon 680M Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
AMD Radeon 660M	Integrated	Shared	DirectX® 12
AMD Radeon 680M	Integrated	Shared	DirectX 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4K@60Hz
- USB-C supports up to 4K@60Hz (4 displays output), 5K@60Hz (3 displays output) or 5K@120Hz (up to 2 displays output)

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR5-6400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2242/2280 SSD

Storage Type**

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, 360° far-field, Dolby Voice
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery**

- Integrated Li-Polymer 41Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
- Integrated Li-Polymer 54.7Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)

MobileMark® 2018: up to 15.68 hr with 868 performance score @200nits

MobileMark 25: up to 13.7 hr with 531 performance score @250nits

JEITA 2.0: up to 20.28 hr @150nits

Local video playback: up to 17.3 hr @150nits

Alternate configuration 2

MobileMark 2018: up to 15.67 hr with 724 performance score @200nits

MobileMark 25: up to 14.47 hr with 669 performance score @250nits

JEITA 2.0: up to 21.58 hr @150nits

Local video playback: up to 18 hr @150nits

Alternate configuration 3

MobileMark 2018: up to 10.8 hr with 702 performance score @200nits

MobileMark 25: up to 9.36 hr with 542 performance score @250nits

JEITA 2.0: up to 13.66 hr @150nits

Local video playback: up to 12.3 hr @150nits

Notes:

1. Configuration 1 (max battery life): WQXGA (non-touch), AMD Ryzen 7 PRO 6850U, 16GB LPDDR5, Win 10, 54.7Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (touch), AMD Ryzen 5 PRO 6650U, 16GB LPDDR5, Win 10, 54.7Wh battery, best power efficiency

power mode
Alternate configuration 3: WUXGA 300nits (non-touch), AMD Ryzen 5 PRO 6650U, 32GB LPDDR5, Win 10, 41Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft* link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**[1][2]

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:
1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-
13.3"	WUXGA (1920x1200)	None	IPS	500 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-
13.3"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Low power, TÜV Low Blue Light, Dolby Vision™

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:
1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 61 x 115 mm (2.40 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Models with CF /GF hybrid top cover	305.8 x 217.89 x 18.25 mm (12.04 x 8.58 x 0.72 inches)
Models with PPS top cover	305.8 x 217.56 x 18.10 mm (12.04 x 8.57 x 0.71 inches)
Models with aluminium top cover	305.8 x 218.39 x 18.10 mm (12.04 x 8.60 x 0.71 inches)

Weight

Models	Weight
Models with WQXGA display, 41Wh battery, and black PPS top cover	Starting at 1.21 kg (2.67 lbs)
Models with WQXGA display, 41Wh battery, and storm grey top cover	Starting at 1.28 kg (2.82 lbs)
Models with WQXGA display, 54.7Wh battery, and black PPS top cover	Starting at 1.26 kg (2.78 lbs)
Models with WQXGA display, 54.7Wh battery, and storm grey top cover	Starting at 1.34 kg (2.94 lbs)
Models with WUXGA display, 41Wh battery, and black carbon fiber top cover	Starting at 1.19 kg (2.62 lbs)
Models with WUXGA display, 41Wh battery, and black PPS top cover	Starting at 1.25 kg (2.77 lbs)
Models with WUXGA display, 41Wh battery, and storm grey top cover	Starting at 1.33 kg (2.93 lbs)
Models with WUXGA display, 54.7Wh battery, and black carbon fiber top cover	Starting at 1.26 kg (2.77 lbs)
Models with WUXGA display, 54.7Wh battery, and black PPS top cover	Starting at 1.31 kg (2.88 lbs)
Models with WUXGA display, 54.7Wh battery, and storm grey top cover	Starting at 1.38 kg (3.04 lbs)

Case Color**

- Storm grey
- Thunder black

Case Material**

- Thunder black models: carbon fiber hybrid or PPS (top), aluminium (bottom)
- Storm grey models: aluminium (top), aluminium (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®**^{[2][3]}

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® NFA-725A Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom FM350-GL 5G NR module with embedded eSIM functionality, M.2 Card
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]**Standard Ports**

- 1x USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort 1.4a)
- 1x HDMI, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad X13 Gen 3 \(AMD\)](#)

Monitor Cable**Monitor Cable*****

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified, with Microsoft Pluton TPM 2.0 integrated in SoC

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password

- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Human Presence Detection
- Mirametrix Glance

MANAGEABILITY**System Management****System Management**

- DASH
- Non-DASH

SERVICE**Warranty****Base Warranty**^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL**Sustainability****Material**

97% PCC recycled plastic used in speaker enclosure
25% PCC recycled plastic used in the 54.7Wh battery
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment**Temperature^[1]**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES**Bundled Accessories**

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

(Optional) TÜV Rheinland® Low Blue Light

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

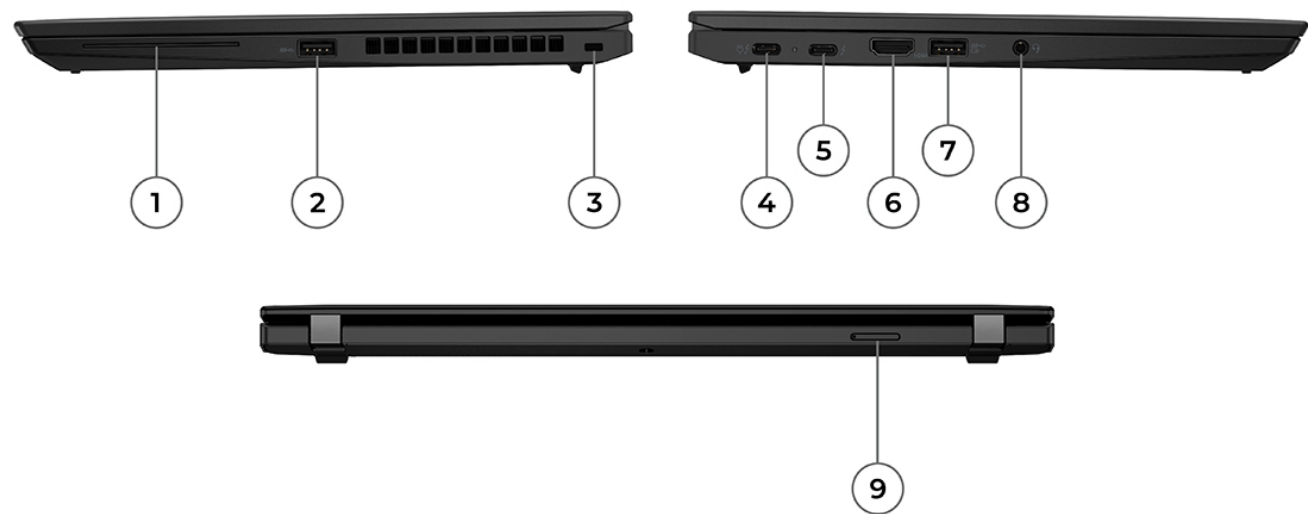


AMD



AMD

OVERVIEW



1. Smart card reader *	6. HDMI
2. USB 3.2 Gen 1	7. USB 3.2 Gen 1 (Always On)
3. Kensington Security Slot	8. Headphone / microphone combo jack (3.5mm)
4. Thunderbolt 4	9. Nano-SIM card slot *
5. Thunderbolt 4	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor**^[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1215U	6 (2 P-core + 4 E-core)	8	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	10MB	LPDDR5-5200	Intel UHD Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris® Xe Graphics
Core i5-1245U	10 (2 P-core + 8 E-core)	12	P-core 1.6GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1265U	10 (2 P-core + 8 E-core)	12	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i5-1250P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1270P	12 (4 P-core + 8 E-core)	16	P-core 2.2GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.5GHz	18MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1280P	14 (6 P-core + 8 E-core)	20	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	24MB	LPDDR5-5200	Intel Iris Xe Graphics

Notes:

1. i3-1215U, i7-1255U, i7-1265U and i7-1280P are NOT available in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12.1

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^{[1][2]}

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type^[3]

LPDDR5-4800

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. In EMEA, 32GB memory is only available for i7 models.
3. Installed memory is actually 6400MHz but run at 4800MHz due to platform limitation

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2242/2280 SSD

Storage Type^{**[2]}

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. PCIe x4 SSD may be PCIe 3.0x4 or PCIe 4.0x4 as substitution.
2TB SSD is special bid only in EMEA.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field, Dolby Voice
- No microphone

Camera^{**}

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery**

- Integrated Li-Polymer 41Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
- Integrated Li-Polymer 54.7Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 11.8 hr with 872 performance score @200nits
MobileMark 25: up to 9.7 hr with 618 performance score @250nits
JEITA 2.0: up to 19.8 hr @150nits
Local video playback: up to 15.7 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 11.3 hr with 982 performance score @200nits
MobileMark 25: up to 9.7 hr with 791 performance score @250nits
JEITA 2.0: up to 19.5 hr @150nits
Local video playback: up to 15.2 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 8.4 hr with 1243 performance score @200nits
MobileMark 25: up to 5.9 hr with 711 performance score @250nits
JEITA 2.0: up to 14.1 hr @150nits
Local video playback: up to 14 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA (non-touch), Intel i5-1240P, 8GB LPDDR5, Win 11, 54.7Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (touch), Intel i5-1245U, 16GB LPDDR5, Win 11, 54.7Wh battery, best power efficiency power mode
Alternate configuration 3: WQXGA, Intel i7-1280U, 32GB LPDDR5, Win 11, 54.7Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-

13.3"	WUXGA (1920x1200)	None	IPS	500 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-
13.3"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Low power, TÜV Low Blue Light, Dolby Vision™

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight^[1]

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 61 x 115 mm (2.40 x 4.53 inches)

Notes:

1. Storm grey cover is ONLY available with backlit keyboard.

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Models with CF /GF hybrid top cover	305.8 x 217.89 x 18.25 mm (12.04 x 8.58 x 0.72 inches)
Models with PPS top cover	305.8 x 217.56 x 18.10 mm (12.04 x 8.57 x 0.71 inches)
Models with aluminium top cover	305.8 x 218.39 x 18.10 mm (12.04 x 8.60 x 0.71 inches)

Weight

Models	Weight
Models with WUXGA display, 41Wh battery, and storm grey top cover	Starting at 1.28 kg (2.83 lbs)
Models with WQXGA display, 41Wh battery, and black PPS top cover	Starting at 1.23 kg (2.71 lbs)
Models with WUXGA display, 54.7Wh battery, and storm grey top cover	Starting at 1.32 kg (2.91 lbs)
Models with WUXGA display, 54.7Wh battery, and black carbon fiber top cover	Starting at 1.24 kg (2.74 lbs)
Models with WUXGA display, 54.7Wh battery, and black PPS top cover	Starting at 1.29 kg (2.85 lbs)
Models with WUXGA display, 41Wh battery, and black carbon fiber top cover	Starting at 1.20 kg (2.65 lbs)
Models with WQXGA display, 54.7Wh battery, and black PPS top cover	Starting at 1.26 kg (2.78 lbs)
Models with WUXGA display, 41Wh battery, and black PPS top cover	Starting at 1.25 kg (2.77 lbs)

Case Color^{**[2]}

- Storm grey
- Thunder black

Case Material^{**}

- Thunder black models: carbon fiber hybrid or PPS (top), aluminium (bottom)
- Storm grey models: aluminium (top), aluminium (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. Storm grey case is NOT available in EMEA.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth^{[2][3]}

Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN^{**}

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom FM350-GL 5G NR module with embedded eSIM functionality, M.2 Card
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports

^[1]**Standard Ports**

- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 2.0)
- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x HDMI, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{***}

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad X13 Gen 3 \(Intel\)](#)

Monitor Cable

Monitor Cable^{***}

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Firmware Resiliency 3.0

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Human Presence Detection
- Mirametrix Glance
- Tile ready

MANAGEABILITY

System Management

System Management**^[1]

- Intel vPro Enterprise
- Intel vPro Essentials
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

97% PCC recycled plastic used in speaker enclosure
25% PCC recycled plastic used in the 54.7Wh battery
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) Intel Evo™ Platform
- (Optional) TÜV Rheinland® Low Blue Light

- Feature with ** means that only one offering listed under the feature is configured on selected models.

- Feature with *** means that one or more offerings listed under the feature could be configured on selected

models.

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OVERVIEW



1. Pen slot	6. Thunderbolt 4
2. Headphone / microphone combo jack (3.5mm)	7. Thunderbolt 4
3. Nano-SIM card slot *	8. HDMI 2.0
4. USB 3.2 Gen 1	9. USB 3.2 Gen 1 (Always On)
5. Kensington Nano Security Slot	10. Smart card reader *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12.1

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR4x-4266

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Type**

Disk Type	Interface	Security
M.2 2280 SSD	PCIe® NVMe®, PCIe 4.0 x4 Performance	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	Opal2

- Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3286 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, far-field

Camera**

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus

Sensor

Sensors

- Accelerometer (G) sensor
- Gyroscope sensor
- Proximity (P) sensor (WWAN model)

Battery

Battery

Integrated Li-Polymer 52.8Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 12.2 hr
JEITA 2.0: 18.9 hr

- Notes:
1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^[1]

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

ThinkPad X13 Yoga Gen 2 (Intel)

- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	-
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-reflection, Anti-smudge	16:10	1000:1	100% sRGB	170°	-
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	ThinkPad® Privacy Guard
13.3"	WQXGA (2560x1600)	Multi-touch	IPS	400 nits	Anti-reflection, Anti-smudge	16:10	1200:1	100% sRGB	170°	Low power, low blue light

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Multi-mode

Multi-mode

Laptop, tent, stand, and tablet modes supported by 360° hinge

Input Device

Pen

- ThinkPad Pen Pro - 11 for X13 Yoga® Gen 2, with built-in rechargeable battery, 4096 levels of pressure sensitivity, on-board garaged and rechargeable
- No pen (pen sold separately)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

305 x 213.9 x 15.39 mm (12.0 x 8.42 x 0.61 inches)

Weight

Starting at 1.2 kg (2.65 lbs)

Case Color

Black

Case Material

Carbon fiber hybrid (top), carbon fiber hybrid (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth[®][2][3]

Intel Wi-Fi[®] 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN^{}**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4[®] 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort[™] 1.4a)
- 1x HDMI 2.0
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports^{*}**

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad X13 Yoga Gen 2 \(Intel\)](#)

Monitor Cable

Monitor Cable^{*}**

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Human Presence Detection

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

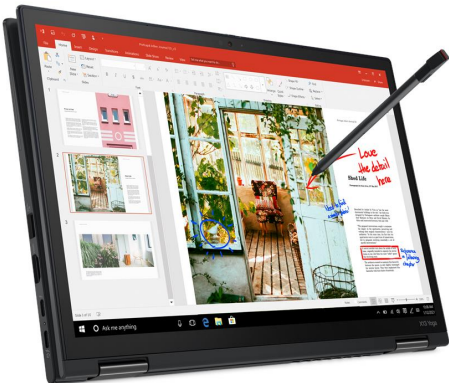
Other Certifications

(Optional) Intel Evo™ Platform

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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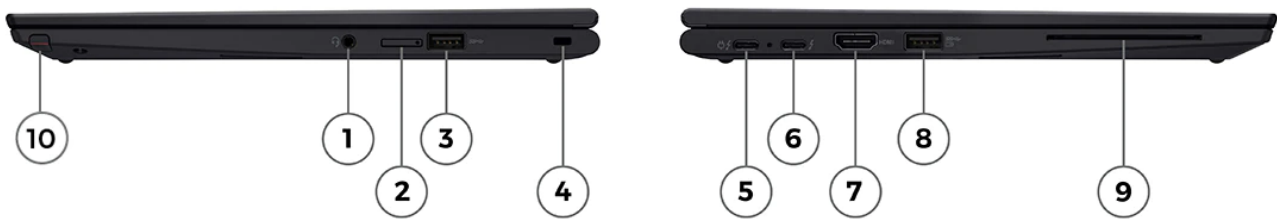


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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	6. Thunderbolt 4
2. Nano-SIM card slot *	7. HDMI
3. USB 3.2 Gen 1	8. USB 3.2 Gen 1 (Always On)
4. Kensington Nano Security Slot	9. Smart card reader *
5. Thunderbolt 4	10. Pen slot

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1245U	10 (2 P-core + 8 E-core)	12	P-core 1.6GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1265U	10 (2 P-core + 8 E-core)	12	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12.1

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR4x-4266

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2280 SSD

Storage Type^{*[2]}

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. PCIe x4 SSD may be PCIe 3.0x4 or PCIe 4.0x4 as substitution.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, far-field, Dolby Voice

Camera^{**}

- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 52.8Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 12.63 hr with 862 performance score @200nits
MobileMark 25: up to 11.48 hr with 667 performance score @250nits
JEITA 2.0: up to 19.11 hr @150nits
Local video playback: up to 17.66 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 12.1 hr with 842 performance score @200nits
MobileMark 25: up to 10.83 hr with 721 performance score @250nits
JEITA 2.0: up to 18.23 hr @150nits
Local video playback: up to 15.7 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 11.63 hr with 836 performance score @200nits
MobileMark 25: up to 10.3 hr with 756 performance score @250nits
JEITA 2.0: up to 17.95 hr @150nits
Local video playback: up to 15.6 hr @150nits

Notes:

1. Configuration 1 (max battery life): WQXGA (touch), Intel i5-1235U, 8GB LPDDR4x, Win 11, 52.8Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA AR/AS (touch), Intel i5-1245U, 16GB LPDDR4x, Win 11, 52.8Wh battery, best power efficiency power mode
Alternate configuration 3: WUXGA AR/AS (touch), Intel i7-1265U, 32GB LPDDR4x, Win 11, 52.8Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**[1]

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare, Anti-smudge	16:10	1000:1	100% sRGB	170°	-
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-reflection, Anti-smudge	16:10	1000:1	100% sRGB	170°	-
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare, Anti-smudge	16:10	1000:1	100% sRGB	170°	ThinkPad® Privacy Guard
13.3"	WQXGA (2560x1600)	Multi-touch	IPS	400 nits	Anti-reflection, Anti-smudge	16:10	1200:1	100% sRGB	170°	Low power, TÜV Low Blue Light, Dolby Vision™

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Multi-mode

Multi-mode

Laptop, tent, stand, and tablet modes supported by 360° hinge

Input Device

Pen^[1]

- Lenovo Integrated Pen, with built-in rechargeable battery, 4096 levels of pressure sensitivity, on-board garaged and rechargeable

- No pen (with a pen garage ready, pen sold separately)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 56 x 115 mm (2.24 x 4.53 inches)

Notes:

1. No pen is only for special bid models.

Mechanical^[1]**Dimensions (WxDxH)**

305 x 214.15 x 15.9 mm (12.0 x 8.43 x 0.63 inches)

Weight

Starting at 1.19 kg (2.62 lbs)

Case Color

Thunder black

Case Material

Carbon fiber hybrid (top), carbon fiber hybrid (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY**Network****Onboard Ethernet^[1]**

No Ethernet

WLAN + Bluetooth®^{[2][3]}

Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]**Standard Ports**

- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 2.0)
- 1x USB 3.2 Gen 1

- 1x USB 3.2 Gen 1 (Always On)
- 1x HDMI, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad X13 Yoga® Gen 3](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Firmware Resiliency 3.0

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- Mirametrix Glance
- Tile ready

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Enterprise
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

30% PCC recycled plastic used in speaker enclosure
25% PCC recycled plastic used in the 57Wh battery
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) Intel Evo™ Platform
- (Optional) TÜV Rheinland® Low Blue Light

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	4. USB-C 3.2 Gen 2
2. Nano-SIM card slot *	5. USB-C 3.2 Gen 2
3. Kensington Nano Security Slot	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Qualcomm® Snapdragon™ Processor

Processor

Processor Name	Cores	Threads	Max Frequency	Cache	Memory Support	Processor Graphics
Qualcomm Snapdragon 8cx Gen 3	4x Kryo Prime + 4x Kryo Gold	8	Kryo Prime / Gold @3.0GHz	1MB L2 for Prime core + 512KB L2 for Gold Core™	LPDDR4x	Qualcomm Adreno™ 690 GPU

Operating System

Operating System**

- Windows® 11 Pro 64 (on ARM)
- Windows 11 Home 64 (on ARM)

Graphics

Graphics

Graphics	Type	Memory	Key Features
Qualcomm Adreno 690 GPU	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

- Supports up to 3 independent displays (native display and 2 external monitors via USB-C®)
- USB-C supports up to 5K@60Hz

Chipset

Chipset

Qualcomm SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR4x-4266

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2242 SSD

Storage Slot

One M.2 2242 PCIe® Gen 3x4 slot, supports M.2 2242 SSD

Storage Type^[2]

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. The SSD with PCI 4.0x4 is downgraded to closer to PCIe 3.0x4 due to the system slot limitation.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Qualcomm WCD9385 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Triple array microphone, far-field

Camera**

- 5.0MP, MIPI, with E-camera shutter, fixed focus
- IR & 5.0MP discrete, MIPI, with E-camera shutter, fixed focus
- IR & 5.0MP discrete, MIPI, with E-camera shutter & Computer Vision, fixed focus

Battery

Battery

Integrated Li-Polymer 49.5Wh battery

Battery Life^[1]

Configuration 1 (max battery life)

Local video playback: up to 28 hr @150nits

Alternate configuration 2

Local video playback: up to 26.2 hr @150nits

Alternate configuration 3

Local video playback: up to 22.2 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA 400nits (non-touch), Qualcomm Snapdragon 8cx Gen 3, 8GB LPDDR4x, Win 11, 49.5Wh battery, balanced power mode
Alternate configuration 2: WUXGA 300nits (non-touch), Qualcomm Snapdragon 8cx Gen 3, 16GB LPDDR4x, Win 11, 49.5Wh battery, balanced power mode
Alternate configuration 3: WQXGA 300nits (touch), Qualcomm Snapdragon 8cx Gen 3, 32GB LPDDR4x, Win 11, 49.5Wh battery, balanced power mode

All battery life claims are approximate maximum and based on results using continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level) battery-life benchmark tests.

Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.

The maximum capacity of the battery will decrease with time, ambient temperature and use.

Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.

2. No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1500:1	100% sRGB	170°	-
13.3"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	1500:1	100% sRGB	170°	Low power, Eyesafe® Certified
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 56 x 115 mm (2.24 x 4.53 inches)

Mechanical[1]

Dimensions (WxDxH)

298.7 x 206.4 x 13.4 mm (11.76 x 8.13 x 0.53 inches)

Weight

Starting at 1.06 kg (2.35 lbs)

Case Color

Thunder black

Case Material

Magnesium-aluminium (top), GFRP (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet[1]

No Ethernet

WLAN + Bluetooth®[2][3]

Qualcomm WCN6855 Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.1

WWAN**

- Qualcomm Snapdragon X55 5G Sub-6 GHz & mmWave Modem-RF System, M.2 card, with embedded eSIM functionality
- Qualcomm Snapdragon X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6E full features might be limited by country level restrictions.
 - Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
 - 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]**Standard Ports**

- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
 - USB 2.0: 480 Mbit/s;
 - USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
 - USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
 - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
 - Thunderbolt™ 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® X13s Gen 1](#)

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified, with Microsoft Pluton TPM 2.0 integrated in SoC

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- System management password
- Self-healing BIOS

Other Security

- E-Camera shutter
- (Optional) Computer Vision-based User Presence Sensing including lock on leave

SERVICE

Warranty

Base Warranty**^{[1][2]}

- 1-year courier service
- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) courier service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>
2. Courier services are for special bid only.

ENVIRONMENTAL

Sustainability

Material

90% certified recycled magnesium
97% PCC recycled plastic used in speaker enclosure
30% PCC recycled plastic used in the 49.5Wh battery
30% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C Port Replicator
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0

- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

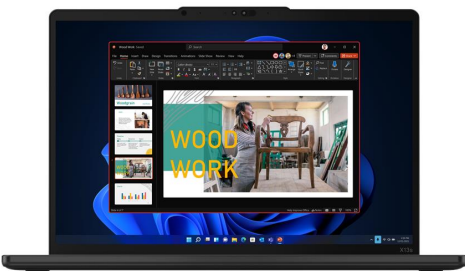
Mil-Spec Test

MIL-STD-810H military test passed

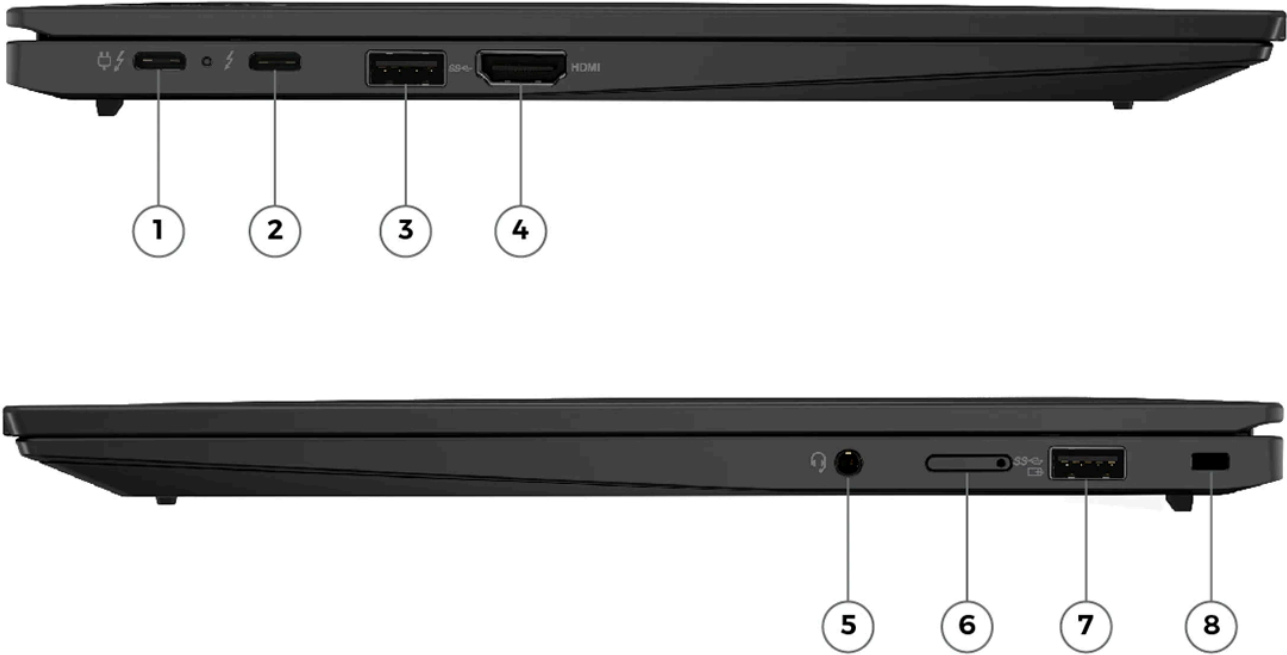
Other Certifications

(Optional) Eyesafe Certified

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- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Thunderbolt 4	5. Headphone / microphone combo jack (3.5mm)
2. Thunderbolt 4	6. Nano-SIM card slot *
3. USB 3.2 Gen 1	7. USB 3.2 Gen 1 (Always On)
4. HDMI	8. Kensington Nano Security Slot

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i5 / i7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris® Xe Graphics
Core i5-1245U	10 (2 P-core + 8 E-core)	12	P-core 1.6GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1265U	10 (2 P-core + 8 E-core)	12	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i5-1250P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1270P	12 (4 P-core + 8 E-core)	16	P-core 2.2GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.5GHz	18MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1280P	14 (6 P-core + 8 E-core)	20	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	24MB	LPDDR5-5200	Intel Iris Xe Graphics

Notes:

1. i7-1280P is NOT available in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Fedora Linux
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	TGP	Key Features
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12.1

Monitor Support

Monitor Support[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^{[1][2]}

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, 8-channel

Memory Type^[3]

LPDDR5-5200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. 8GB memory is NOT available in EMEA.
3. Installed memory is actually 6400MHz but run at 5200MHz due to processor limitation

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2242/2280 SSD

Storage Type^{*[2]}

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. PCIe x4 SSD may be PCIe 3.0x4 or PCIe 4.0x4 as substitution.
512GB and 1TB M.2 2280 PCIe 4x4 SSD are NOT available in EMEA.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2 woofers and 0.8W x2 tweeters, Dolby® Atmos®

Microphone

Four microphones, quad-array, 360° far-field, Dolby Voice

Camera^{*[1]}

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- IR & FHD 1080p discrete, MIPI, with privacy shutter & Computer Vision, fixed focus

Notes:

1. 720p camera is NOT available in EMEA.

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 15.0 hr with 838 performance score @200nits
MobileMark 25: up to 13.1 hr with 663 performance score @250nits
JEITA 2.0: up to 24.9 hr @150nits
Local video playback: up to 19.9 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 14.3 hr with 840 performance score @200nits
MobileMark 25: up to 11.3 hr with 623 performance score @250nits
JEITA 2.0: up to 24.9 hr @150nits
Local video playback: up to 19.9 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 14.2 hr with 809 performance score @200nits
MobileMark 25: up to 11.1 hr with 600 performance score @250nits
JEITA 2.0: up to 21.7 hr @150nits
Local video playback: up to 19.7 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA (non-touch), Intel i5-1235U, 8GB LPDDR5, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (non-touch), Intel i5-1240P, 16GB LPDDR5, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 3: WUXGA (non-touch), Intel i7-1260P, 16GB LPDDR5, Win 11, 57Wh battery, best power efficiency power mode
- All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter^{**[1][2]}

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. In EMEA only 65W USB-C slim AC adapters are available.

DESIGN

Display

Display^{**[1][2]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, Eyesafe® Certified

14.0"	WUXGA (1920x1200)	On-cell touch	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, Eyesafe Certified
14.0"	WUXGA (1920x1200)	On-cell touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	ThinkPad® Privacy Guard, TÜV ePrivacy Certification
14.0"	2.2K (2240x1400)	None	IPS	300 nits	Anti-glare	16:10	1500:1	100% sRGB	170°	TÜV Low Blue Light Method 2
14.0"	2.8K (2880x1800)	None	OLED	SDR 400nits, HDR 500nits	Anti-glare, Anti-reflection, Anti-smudge	16:10	100000:1	100% DCI-P3	170°	DisplayHDR™ 500 True Black, Eyesafe Certified
14.0"	WQUXGA (3840x2400)	None	IPS	500 nits	Glossy	16:10	1500:1	100% DCI-P3	170°	Low power, Dolby Vision™, DisplayHDR 400, Eyesafe Certified
14.0"	WQUXGA (3840x2400)	Add On Film Touch	IPS	500 nits	Anti-glare, Anti-reflection, Anti-smudge	16:10	1500:1	100% DCI-P3	170°	Low power, Dolby Vision, DisplayHDR 400, Eyesafe Certified

Touchscreen**

- Add-on Film Touch, supports 10-point touch
- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
2. 2.2K display and Add on Film Touch display are NOT available in EMEA.

Input Device

Keyboard

6-row, spill-resistant, air intake design, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad, 56 x 110 mm (2.20 x 4.33 inches)

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Model with 720p camera	315.6 x 222.5 x 14.95 mm (12.43 x 8.76 x 0.59 inches)
Model with other camera	315.6 x 222.5 x 15.36 mm (12.43 x 8.76 x 0.60 inches)

Weight

Starting at 1.12 kg (2.48 lbs)

Case Color**

- Deep black, paint
- Deep black, weave

Case Material

Carbon fiber (top), aluminium (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®^{**[2][3]}

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN^{**}

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom FM350-GL 5G NR module with embedded eSIM functionality, M.2 Card
- Fibocom L860-GL-16, 4G LTE CAT16, MIMO 4x4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad X1 Carbon Gen 10](#)

Monitor Cable

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Firmware Resiliency 3.0

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Computer Vision-based User Presence Sensing including lock on leave
- Mirametrix Glance
- Tile ready

MANAGEABILITY

System Management

System Management**^[1]

- Intel vPro Enterprise
- Intel vPro Essentials
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

95% PCC recycled plastic used in speaker enclosure
25-30% PCC recycled plastic used in the 57Wh battery
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) Eyesafe Certified
- (Optional) Intel Evo™ Platform
- TÜV Rheinland® Dynamic Privacy Filter (DPF) Certification (Privacy Guard models)
- (Optional) TÜV Rheinland Low Blue Light Method 2

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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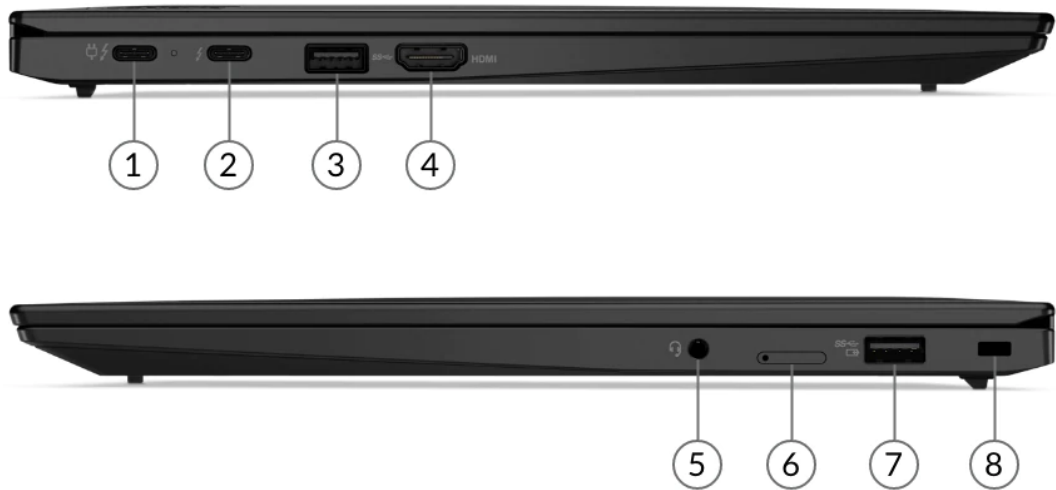


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OVERVIEW



1. Thunderbolt 4	5. Headphone / microphone combo jack (3.5mm)
2. Thunderbolt 4	6. Nano-SIM card slot *
3. USB 3.2 Gen 1	7. USB 3.2 Gen 1 (Always On)
4. HDMI 2.0	8. Kensington Nano Security Slot

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Fedora Linux
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12.1

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, 8-channel

Memory Type

LPDDR4x-4266

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the

technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2280 SSD

Storage Type**

Disk Type	Interface	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2 woofers and 0.8W x2 tweeters, Dolby® Atmos®

Microphone

Four microphones, quad-array, 360° far-field, Dolby Voice

Camera**

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2014: 21.3 hr

MobileMark 2018: 16.7 hr

JEITA 2.0: 26.0 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^{[1][2]}

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

- AC adapter offerings depend on the country.
- No power adapter is for special bid only.

DESIGN

Display

Display**^{[1][2]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, low blue light
14.0"	WUXGA (1920x1200)	Multi-touch	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, low blue light
14.0"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, ThinkPad® Privacy Guard
14.0"	WQUXGA (3840x2400)	None	IPS	500 nits	Glossy	16:10	1500:1	100% DCI-P3	170°	Low blue light, DisplayHDR™ 400

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- In marketing terms, WUXGA is FHD+ and WQUXGA is UHD+.

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

315 x 221.6 x 14.9 mm (12.4 x 8.72 x 0.59 inches)

Weight

Starting at 1.133 kg (2.49 lbs)

Case Color**

- Black, paint
- Black, weave

Case Material

Carbon fiber (top), magnesium alloy (bottom)

Notes:

- The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®^{[2][3]}

Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- Qualcomm® Snapdragon™ X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad X1 Carbon Gen 9](#)

Monitor Cable

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Human Presence Detection

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{[1][2]}**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>
2. No base warranty is for special bid only.

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) Intel Evo™ Platform
- TÜV Rheinland® Dynamic Privacy Filter (DPF) Certification (Privacy Guard models)
- (Optional) TÜV Rheinland Low Blue Light

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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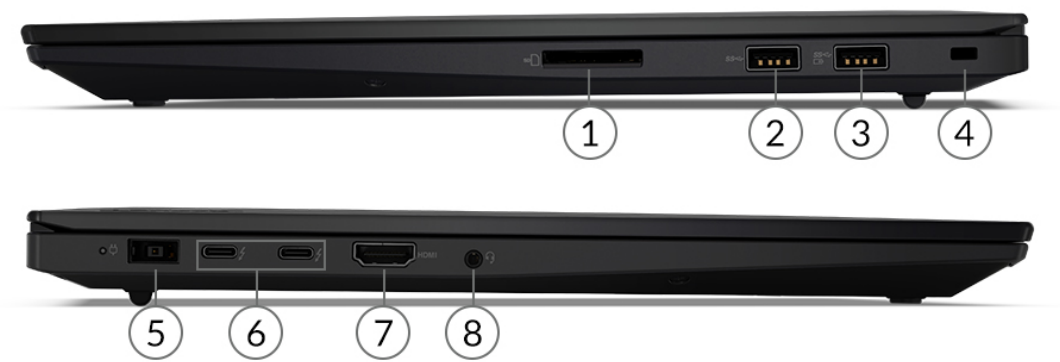


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OVERVIEW



1. SD card reader	5. Power connector
2. USB 3.2 Gen 1	6. 2x Thunderbolt 4
3. USB 3.2 Gen 1 (Always On)	7. HDMI 2.0 / 2.1
4. Kensington Nano Security Slot	8. Headphone / microphone combo jack (3.5mm)

- Notes:
- Optional nano-SIM card slot on the right side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i7-11800H	8	16	2.3GHz	4.6GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i7-11850H	8	16	2.5GHz	4.8GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i9-11950H	8	16	2.6GHz	5.0GHz	24MB	DDR4-3200	Intel UHD Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce RTX™ 3050 Ti Laptop GPU	Discrete	4GB GDDR6	DirectX 12
NVIDIA GeForce RTX 3060 Laptop GPU	Discrete	6GB GDDR6	DirectX 12
NVIDIA GeForce RTX 3070 Laptop GPU	Discrete	8GB GDDR6	DirectX 12
NVIDIA GeForce RTX 3080 Laptop GPU	Discrete	16GB GDDR6	DirectX 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 4K@60Hz
- Thunderbolt supports up to 5K@60Hz

Chipset

Chipset

Intel WM590 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

- Model with RTX 3060/3070/3080 graphics: one drive, up to 2TB M.2 2280 SSD
- Model with Intel UHD Graphics or RTX 3050 Ti graphics: up to two drives, 2x M.2 SSD
 - M.2 2280 SSD up to 2TB
 - RAID 0/1 support

Storage Slot^[2]

- Model with Intel UHD Graphics or RTX 3050 Ti Graphics: two M.2 slots
 - One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2280 SSD
 - One M.2 2280 PCIe Gen 4x4 slot, supports M.2 2280 SSD
- Model with RTX 3060/3070/3080 Graphics: one M.2 slot
 - One M.2 2280 PCIe Gen 4x4 slot, supports M.2 2280 SSD

Storage Type^{***[3]}

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	256GB / 512GB / 1TB	Opal2

RAID^[4]

RAID 0/1 support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. M.2 PCIe Gen 4 SSD in the M.2 PCIe Gen 3 slot is downgraded to PCIe Gen 3 performance.
3. Opal capability is not available in RAID mode.
4. Both SSD drives work at PCIe Gen 3 performance in RAID mode.

Removable Storage

Optical

None

Card Reader

SD card reader, supports UHS-II SD card

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2, Dolby® Atmos®

Microphone^[1]

- Dual array microphone, far-field
- No microphone

Camera^{**[2]}

- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Notes:

1. No microphone is for special bid only.
2. No camera is for special bid only.

Battery

Battery

Integrated Li-Polymer 90Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life^[1]

MobileMark® 2018: 10.7 hr
JEITA 2.0: 12.8 hr

- Notes:
1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**[1][2]

- 135W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

- Notes:
1. AC adapter offerings depend on the country.
 2. 135W for Intel UHD Graphics, 170W for RTX 3050 Ti Graphics, and 230W for RTX 3060/3070/3080 Graphics.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
16.0"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Low blue light
16.0"	WQUXGA (3840x2400)	None	IPS	600 nits	Anti-glare	16:10	1500:1	100% Adobe® RGB	170°	Low blue light, Dolby Vision™, DisplayHDR™ 400
16.0"	WQUXGA (3840x2400)	Multi-touch	IPS	600 nits	Anti-reflection, Anti-smudge	16:10	1500:1	100% Adobe RGB	170°	Low blue light, Dolby Vision, DisplayHDR 400

Color Calibration

- X-Rite® Pantone® factory color calibration (WQUXGA display)
- No color calibration

Touchscreen

- Capacitive-type multi-touch, supports 10-point touch
- Non-touch

- Notes:
1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
 2. In marketing terms, WQXGA is QHD+ and WQUXGA is UHD+.
WQXGA display comes with black paint top cover only.
WQUXGA display comes with black weave top cover only.

Input Device

Pen

- Lenovo Precision Pen 2 with built-in rechargeable battery, 4096 levels of pressure sensitivity, tilt detection, supports WGP, AES 2.0 and MPP 2.0 protocols
- No pen (pen sold separately)
- No support (non-touch display doesn't support pen input)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Touch models	359.5 x 253.8 x 18.2 mm (14.15 x 9.99 x 0.72 inches)
Non-touch models	359.5 x 253.8 x 17.7 mm (14.15 x 9.99 x 0.7 inches)

Weight

Models	Weight
Touch models	Starting at 1.86 kg (4.1 lbs)
Non-touch models	Starting at 1.81 kg (3.99 lbs)

Case Color**

- Black, paint
- Black, weave

Case Material

Carbon fiber hybrid (top), aluminium alloy (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®^{[2][3]}

Intel Wi-Fi® 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN^[4]

- Qualcomm® Snapdragon™ X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Ethernet support via optional Lenovo USB-C® to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
4. WWAN is not available for the models with RTX 3060/3070/3080 graphics.

Ports^[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x SD card reader
- 1x Headphone / microphone combo jack (3.5mm)

- 1x Power connector

Optional Ports***

- 1x Nano-SIM card slot (WWAN support models)
- 1x HDMI 2.0 (model with integrated graphics)
- 1x HDMI 2.1 (model with discrete graphics)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® X1 Extreme Gen 4](#)

Monitor Cable

Monitor Cable***

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^{[1][2]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>
2. No base warranty is for special bid only.

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected

models.

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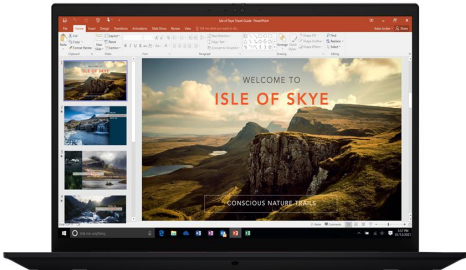
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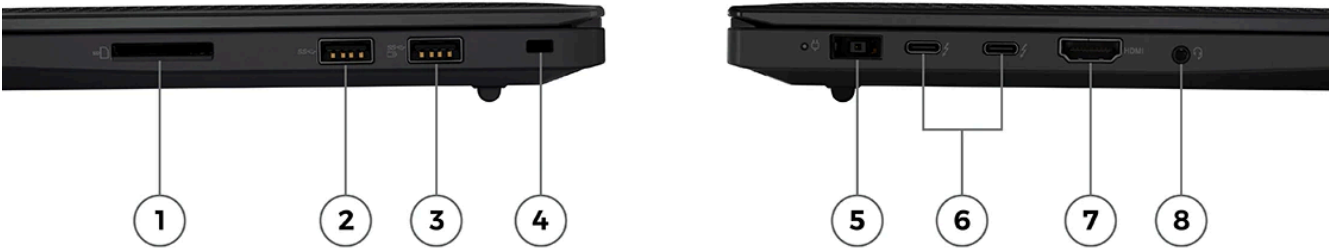


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OVERVIEW



1. SD Express 7.0 card reader	5. Power connector
2. USB 3.2 Gen 1	6. 2x Thunderbolt 4
3. USB 3.2 Gen 1 (Always On)	7. HDMI
4. Kensington Nano Security Slot	8. Headphone / microphone combo jack (3.5mm)

- Notes:
- Optional nano-SIM card slot on the right side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i7 / i9 processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i7-12700H	14 (6 P-core + 8 E-core)	20	P-core 2.3GHz / E-core 1.7GHz	P-core 4.7GHz / E-core 3.5GHz	24MB	DDR5-4800	Intel Iris® Xe Graphics
Core i7-12800H	14 (6 P-core + 8 E-core)	20	P-core 2.4GHz / E-core 1.8GHz	P-core 4.8GHz / E-core 3.7GHz	24MB	DDR5-4800	Intel Iris Xe Graphics
Core i9-12900H	14 (6 P-core + 8 E-core)	20	P-core 2.5GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	24MB	DDR5-4800	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
NVIDIA® GeForce RTX™ 3070 Ti Laptop GPU	Discrete	8GB GDDR6	DirectX® 12
NVIDIA GeForce RTX 3080 Ti Laptop GPU	Discrete	16GB GDDR6	DirectX 12
NVIDIA GeForce RTX 3050 Ti Laptop GPU	Discrete	4GB GDDR6	DirectX 12
NVIDIA GeForce RTX 3060 Laptop GPU	Discrete	6GB GDDR6	DirectX 12

Monitor Support

Monitor Support^[1]

Supports up to 5 independent displays in hybrid mode (native display and 4 external monitors via HDMI® and Thunderbolt™);

Supports up to 4 independent displays in discrete mode (native display and 3 external monitors via HDMI and Thunderbolt)

- HDMI supports up to 8K@60Hz
- Thunderbolt supports up to 5K@60Hz

Notes:

- Refresh rates >60hz also supported, however max resolution will be limited.
8K resolution support needs 2 display pipes. That is, simultaneous display number will “-1” when 8K resolution displayed.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 64GB DDR5-4800

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type

DDR5-4800

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

- Model with RTX 3050 Ti graphics: up to two drives, 2x M.2 SSD
 - M.2 2280 SSD up to 4TB
 - RAID 0/1 support
- Model with RTX 3060/3070 Ti/3080 Ti graphics: one drive, up to 4TB M.2 2280 SSD

Storage Slot

- Model with RTX 3050 Ti graphics:
Two M.2 2280 PCIe® Gen 4x4 slots, supports M.2 2280 SSD
- Model with RTX 3060/3070 Ti/3080 Ti graphics:
One M.2 2280 PCIe Gen 4x4 slot, supports M.2 2280 SSD

Storage Type^{***[2]}

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB / 4TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	256GB / 512GB / 1TB	Opal2

RAID

RAID 0/1 support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

2. PCIe x4 SSD may be PCIe 3.0x4 or PCIe 4.0x4 as substitution.

Opal capability is not available in RAID mode.

Removable Storage

Optical

None

Card Reader

SD Express 7.0 card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

Dual array microphone, far-field, Dolby Voice

Camera

IR & FHD 1080p hybrid, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 90Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Battery Life^[1]

Configuration 1 (max battery life)

MobileMark® 2018: up to 11.0 hr with 907 performance score @200nits

MobileMark 25: up to 9.8 hr with 627 performance score @250nits

JEITA 2.0: up to 22.0 hr @150nits

Local video playback: up to 15.3 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 10.4 hr with 945 performance score @200nits
MobileMark 25: up to 9.7 hr with 632 performance score @250nits
JEITA 2.0: up to 19.3 hr @150nits
Local video playback: up to 14.5 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 6.7 hr with 861 performance score @200nits
MobileMark 25: up to 5.8 hr with 556 performance score @250nits
JEITA 2.0: up to 12.5 hr @150nits
Local video playback: up to 10.3 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA (non-touch), Intel i7-12700H, 16GB DDR5, NVIDIA GeForce RTX 3050 Ti, Win 10, 90Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (non-touch), Intel i7-12800H, 32GB DDR5, NVIDIA GeForce RTX 3050 Ti, Win 10, 90Wh battery, best power efficiency power mode
Alternate configuration 3: WQUXGA (touch), Intel i7-12900H, 64GB DDR5, NVIDIA GeForce RTX 3080 Ti, Win 10, 90Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

- Power Adapter**[1][2]
- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
 - 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
 - No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. 170W for RTX 3050 Ti graphics and 230W for RTX 3060/3070 Ti/3080 Ti graphics.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
16.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1200:1	100% sRGB	178°	-
16.0"	WQXGA (2560x1600)	None	IPS	500 nits	Anti-glare	16:10	1200:1	100% sRGB	178°	Refresh rate 165Hz, TÜV Low Blue Light Method 2
16.0"	WQUXGA (3840x2400)	None	IPS	600 nits	Anti-glare	16:10	1500:1	100% Adobe® RGB	170°	Dolby Vision™, DisplayHDR™ 400, TÜV Low Blue Light Method 2
16.0"	WQUXGA (3840x2400)	Multi-touch	IPS	600 nits	Anti-reflection, Anti-smudge	16:10	1500:1	100% Adobe RGB	170°	Dolby Vision, DisplayHDR 400, TÜV Low Blue Light Method 2

Color Calibration

X-Rite® Pantone® factory color calibration

Touchscreen

- Capacitive-type multi-touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
2. Dolby Vision and DisplayHDR 400 are only supported under hybrid graphics mode.

Input Device

Pen

- Lenovo Precision Pen 2 with built-in rechargeable battery, 4096 levels of pressure sensitivity, tilt detection, supports WGP, AES 2.0 and MPP 2.0 protocols
- No pen (pen sold separately)
- No support (non-touch display doesn't support pen input)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad, 67.7 x 115 mm (2.67 x 4.53 inches)

Mechanical^[1]

Dimensions (WxDxH)

359.5 x 253.8 x 17.9 mm (14.15 x 9.99 x 0.7 inches)

Weight

Starting at 1.88 kg (4.14 lbs)

Case Color**

- Black, paint (WUXGA or WQXGA models)
- Black, weave (WQUXGA models)

Case Material

Carbon fiber (top), aluminium (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®^[2]

Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN^[3]

- Fibocom FM350-GL 5G NR module with embedded eSIM functionality, M.2 Card
- No support

SIM Card

No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C® to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. WWAN is only available on the models with RTX 3050 Ti graphics.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x HDMI, up to 8K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector
- 1x SD Express 7.0 card reader

Optional Ports

1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® X1 Extreme Gen 5](#)

Monitor Cable**Monitor Cable*****

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Firmware Resiliency 3.0

Other Security

- Camera privacy shutter
- IR camera for Windows Hello
- Mirametrix Glance
- Tile ready

MANAGEABILITY

System Management

System Management

- Intel vPro Enterprise
- Non-vPro

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

30% PCC recycled plastic used in speaker enclosure

30% PCC recycled plastic used in the 90Wh battery

Low-temperature solder

90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

(Optional) TÜV Rheinland® Low Blue Light Method 2

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. 2x USB-C 3.2 Gen 2	2. Nano-SIM card slot *
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- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Core™ Processor with Intel Hybrid Technology

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-L16G7	5	5	1.4GHz	3.0GHz	4MB	LPDDR4x-4266 POP Memory	Intel UHD Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64

Graphics

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via USB-C®)

- USB-C supports up to 3840x2160@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

8GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR4x-4266, PoP (Package on Package) memory

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2242 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger

storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 1W x2, Dolby® Atmos®

Microphone

Four microphones, quad-array

Camera

IR & 5.0MP hybrid, fixed focus

Sensor

Sensors

- Accelerometer (G) sensor
- Gyroscope sensor
- Proximity (P) sensor (WWAN model)

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life^[1]

MobileMark® 2018: 8.5 hr

Video Playback: 10.6 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^{**[1]}

- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	QXGA (2048x1536)	Multi-touch	Folding OLED	300 nits	Anti-fingerprint	4:3	5000:1	95% DCI-P3	170°	-

Touchscreen

On-cell touch, supports 10-point touch

Notes:

1. California Electronic Waste Recycling Fee

In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Pen**

- Lenovo Pen Pro, with built-in rechargeable battery, 4096 levels of pressure sensitivity. For more information, please read [Lenovo Pen Pro Overview](#).
- Lenovo Mod Pen, with built-in rechargeable battery, 4096 levels of pressure sensitivity. For more information, please read [Lenovo Mod Pen Overview](#).
- No pen (pen sold separately)

Keyboard

- Lenovo Fold Mini Keyboard, Bluetooth® pairing, with a pen loop (left side), magnetically attachable to X1 Fold (the side without camera), wireless charging when closed inside folded device or charging via micro USB cable
- No keyboard

Keyboard Backlight

Non-backlight

Touchpad

- Glass surface touchpad on Lenovo Fold Mini Keyboard, 2-finger scrolling support
- No touchpad

Mechanical^[1]

Dimensions (WxDxH)

Folded: 158 x 235.6 x 27.8 mm (6.22 x 9.28 x 1.09 inches)

Unfolded: 299 x 235.6 x 11.3 mm (11.77 x 9.28 x 0.44 inches)

Weight

Starting at 0.999 kg (2.2 lbs)

Case Color

Black

Case Material

Magnesium alloy + authentic leather (top), magnesium alloy + authentic leather (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth^{[2][3]}

Intel Wi-Fi® 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN^[4]

- Qualcomm® Snapdragon™ X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter

2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6 full features might be limited by country-level restrictions.
4. For non-WWAN model, it means the model is NOT WWAN upgradable.

Ports^[1]

Standard Ports

2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.2)

Optional Ports

1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
 - USB 2.0: 480 Mbit/s;
 - USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
 - USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
 - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
 - Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® X1 Fold Gen 1](#)

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Smart Card Reader

No smart card reader

Fingerprint Reader

No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

MANAGEABILITY

System Management

System Management

Non-vPro

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 3-year (1-yr battery) depot service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 10% to 90% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 10% to 90% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo Powered USB-C Travel Hub
- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

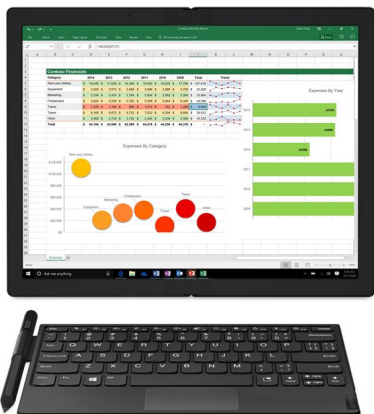
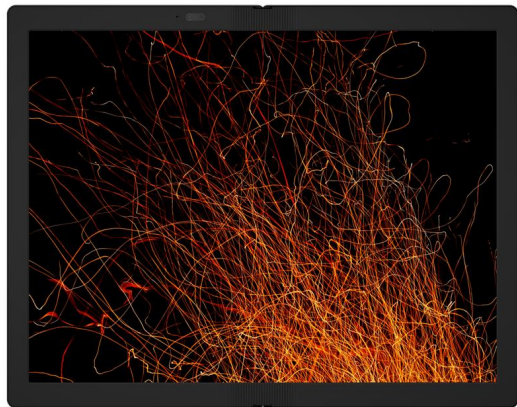
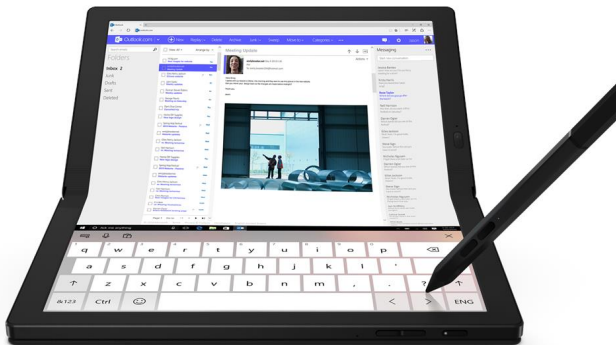
Other Certifications

Athena certified

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- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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notice.



OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	3. Thunderbolt 4
2. Thunderbolt 4	4. Power button

- Notes:
- Optional nano-SIM card slot on the rear side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1130G7	4	8	1.8GHz	4.0GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1140G7	4	8	1.8GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1160G7	4	8	2.1GHz	4.4GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1180G7	4	8	2.2GHz	4.6GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise LTSC
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12.1

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via Thunderbolt™)

- Thunderbolt supports up 5120x3200@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^{[1][2]}

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR4x-4266

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. 8GB memory is NOT available in EMEA.

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2242 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-

- Notes:
- The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2 woofers and 1W x2 tweeters, Dolby® Atmos®

Microphone

Four microphones, quad-array, 360° far-field

Camera

IR & HD 720p hybrid, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 48Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life^[1]

MobileMark® 2018: 13.6 hr
JEITA 2.0: 22.87 hr

- Notes:
- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^{**[1][2]}

- 65W USB-C® slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

- Notes:
- AC adapter offerings depend on the country.
 - No power adapter is for special bid only.

DESIGN

Display

Display^{**[1]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
------	------------	-------	------	------------	---------	--------------	----------------	-------------	---------------	--------------

13.0"	2K (2160x1350)	None	IPS	450 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power
13.0"	2K (2160x1350)	Multi- touch	IPS	450 nits	Anti-reflection, Anti-smudge	16:10	1000:1	100% sRGB	170°	Low power

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Touch models	292.9 x 207.8 x 14.27-17.2 mm (11.53 x 8.18 x 0.56-0.68 inches)
Non-touch models	292.8x 207.7 x 13.87-16.7 mm (11.53 x 8.18 x 0.55-0.66 inches)

Weight

Models	Weight
Non-touch with Wi-Fi® models	Starting at 907 g (1.99 lbs)
Non-touch with WWAN models	Starting at 939 g (2.07lbs)
Touch with Wi-Fi models	Starting at 969 g (2.14 lbs)
Touch with WWAN models	Starting at 1001 g (2.21 lbs)

Case Color**

- Black, paint
- Black, weave

Case Material

Carbon fiber (top), magnesium alloy (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®^{[2][3]}

Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**^[4]

- Wireless WAN upgradable to 4G or 5G (with antenna ready)
- Fibocom L850-GL, 4G LTE CAT9, M.2 card

- Qualcomm® Snapdragon™ X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6 full features might be limited by country-level restrictions.
4. For non-WWAN model, it means the model is NOT WWAN upgradable.

Ports^[1]**Standard Ports**

- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking**Docking**

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® X1 Nano Gen 1](#)

Monitor Cable**Monitor Cable**

- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Firmware Resiliency 2.0

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

- (Optional) Human Presence Detection

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories^{***}

- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C Port Replicator
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

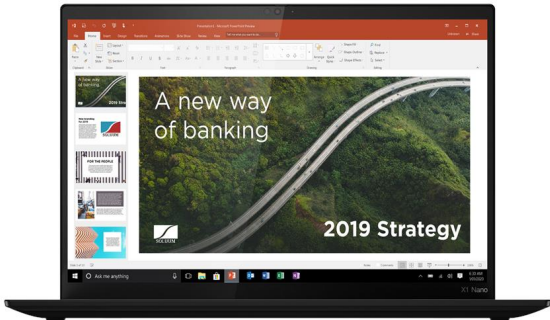
Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

(Optional) Intel Evo™ Platform

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OVERVIEW



1. Power button	3. 2x Thunderbolt 4
2. Headphone / microphone combo jack (3.5mm)	

- Notes:
- Optional nano-SIM card slot on the rear side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris® Xe Graphics
Core i5-1250P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1270P	12 (4 P-core + 8 E-core)	16	P-core 2.2GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.5GHz	18MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1280P	14 (6 P-core + 8 E-core)	20	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	24MB	LPDDR5-5200	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	TGP	Key Features
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12.1

Monitor Support

Monitor Support^[1]

Supports up to 3 independent displays (native display and 2 external monitors via Thunderbolt™)

- Thunderbolt supports up to 5K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^{[1][2]}

- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, 8-channel

Memory Type^[3]

LPDDR5-5200

- Notes:
1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
 2. 32GB memory is only for i7-1280P models.
 3. Installed memory is actually 6400MHz but run at 5200MHz due to processor limitation

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2242 SSD

Storage Slot

One M.2 2242 PCIe® Gen 4x4 slot, supports M.2 2242 SSD

Storage Type

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2

- Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2 woofers and 1W x2 tweeters, Dolby® Atmos®

Microphone

Four microphones, quad-array, far-field, Dolby Voice

Camera^{**[1]}

- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- IR & FHD 1080p discrete, MIPI, with privacy shutter & Computer Vision, fixed focus

- Notes:
1. 1080p camera and MIPI camera are only available on non-touch models.
IR&1080p camera is only available on touch models.

Battery

Battery

Integrated Li-Polymer 49.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 11.0 hr with 871 performance score @200nits
MobileMark 25: up to 10.3 hr with 806 performance score @250nits
JEITA 2.0: up to 18.2 hr @150nits
Local video playback: up to 16.2 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 10.4 hr with 888 performance score @200nits
MobileMark 25: up to 9.8 hr with 796 performance score @250nits
JEITA 2.0: up to 17.9 hr @150nits
Local video playback: up to 15.6 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 10.1 hr with 845 performance score @200nits

MobileMark 25: up to 9.6 hr with 838 performance score @250nits
JEITA 2.0: up to 17.0 hr @150nits
Local video playback: up to 15.4 hr @150nits

Notes:

1. Configuration 1 (max battery life): 2K (non-touch), Intel i5-1240P, 16GB LPDDR5, Win 11, 49.5Wh battery, best power efficiency power mode
Alternate configuration 2: 2K (non-touch), Intel i5-1250P, 16GB LPDDR5, Win 11, 49.5Wh battery, best power efficiency power mode
Alternate configuration 3: 2K (non-touch), Intel i7-1280P, 32GB LPDDR5, Win 11, 49.5Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**^{[1][2]}

- 65W USB-C® slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

1. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.

DESIGN

Display

Display**^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.0"	2K (2160x1350)	None	IPS	450 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power
13.0"	2K (2160x1350)	Multi-touch	IPS	450 nits	Anti-glare, Anti-reflection, Anti-smudge	16:10	1000:1	100% sRGB	170°	Low power

Touchscreen^[2]

- Add-on Film Touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

2. Multi-touch display is only for black weave models.

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad, 56 x 110 mm (2.20 x 4.33 inches)

Mechanical^[1]

Dimensions (WxDxH)

Models	Dimensions
Touch models	293.3 x 208.1 x 14.8 mm (11.55 x 8.19 x 0.58 inches)
Non-touch models	293.2 x 208.0 x 14.4 mm (11.54 x 8.19 x 0.57 inches)

Weight

Models	Weight
Touch models	Starting at 991.5 g (2.19 lbs)
Non-touch models	Starting at 966.5 g (2.13 lbs)

Case Color**

- Black, paint
- Black, weave

Case Material

Carbon fiber (top), magnesium alloy (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth^{[2][3]}

Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G or 5G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, MIMO 4x4, M.2 card
- Qualcomm® Snapdragon™ X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]

Standard Ports

- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;

USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® X1 Nano Gen 2](#)

Monitor Cable

Monitor Cable***

- Lenovo USB-C to HDMI® Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Firmware Resiliency 3.0

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Computer Vision-based User Presence Sensing including lock on leave
- Mirametrix Glance
- Tile ready

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service

- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

97% PCC recycled plastic used in the 49.6Wh battery
30% PCC recycled plastic used in speaker enclosure
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C Port Replicator
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

(Optional) Intel Evo™ Platform

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. 2x Thunderbolt 4	3. Headphone / microphone combo jack (3.5mm)
2. Power button	4. Kensington Nano Security Slot

- Notes:
- Optional nano-SIM card slot on the left side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1130G7	4	8	1.8GHz	4.0GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1140G7	4	8	1.8GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1160G7	4	8	2.1GHz	4.4GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1180G7	4	8	2.2GHz	4.6GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12.1

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via Thunderbolt™)

- Thunderbolt supports up 5120x3200@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^{[1][2]}

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR4x-4266, PoP (Package on Package) memory

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. 8GB memory is NOT available in EMEA.

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2242 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3286 codec

Speakers

Stereo speakers, 2W x2, Dolby® Atmos®

Microphone

Four microphones, quad-array

Camera

IR & HD 720p hybrid, with privacy shutter, fixed focus

Sensor

Sensors

- Accelerometer (G) sensor
- Gyroscope sensor
- Proximity (P) sensor (WWAN model)
- ToF sensor

Battery

Battery

Integrated Li-Polymer 44.5Wh battery

Max Battery Life^[1]

MobileMark® 2018: 11.7 hr
JEITA 2.0: 16.8 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter^{**[1]}

- 65W USB-C® slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.5"	QHD (2256x1504)	Multi-touch	IPS	450 nits	Anti-reflection, Anti-smudge	3:2	1200:1	72% NTSC	170°	Dolby Vision™

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Notes:

- 1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Multi-mode

Multi-mode

Laptop, tent, stand, and tablet modes supported by 360° hinge

Input Device

Pen

- Lenovo Precision Pen, 4096 levels of pressure sensitivity, magnetically attached to the system. For more information, please read [Lenovo Precision Pen Overview](#).
- No pen (pen sold separately)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical^[1]

Dimensions (WxDxH)

297.5 x 232.7 x 11.5 mm (11.71 x 9.16 x 0.45 inches)

Weight

Models	Weight
WLAN models	Starting at 1.15 kg (2.54 lbs)
WWAN models	Starting at 1.18 kg (2.60 lbs)

Case Color

Titanium

Case Material

Titanium + carbon fiber (top), magnesium-aluminium (bottom)

Notes:

- 1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®^{[2][3]}

Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Fibocom L850-GL, 4G LTE CAT9, M.2 card
- Qualcomm® Snapdragon™ X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports^[1]

Standard Ports

- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® X1 Titanium Yoga® Gen 1](#)

Monitor Cable

Monitor Cable***

- Lenovo USB-C to HDMI® Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on the top right of keyboard bezel with Prometheus slim type sensor, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- IR camera for Windows Hello
- Human Presence Detection

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories^{***}

- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- Lenovo USB-C Port Replicator
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

(Optional) Intel Evo™ Platform

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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OVERVIEW



1. Thunderbolt 4	5. Pen slot
2. Thunderbolt 4	6. Headphone / microphone combo jack (3.5mm)
3. USB 3.2 Gen 1	7. USB 3.2 Gen 1 (Always On)
4. HDMI 2.0	8. Kensington Nano Security Slot

- Notes:
- Optional nano-SIM card slot on the right side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12.1

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, 8-channel

Memory Type

LPDDR4x-4266

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2280 SSD

Storage Type**

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2 woofers and 0.8W x2 tweeters, Dolby® Atmos®

Microphone

Four microphones, quad-array, 360° far-field, Dolby Voice

Camera**

- HD 720p, with privacy shutter, fixed focus
- IR & HD 720p hybrid, with privacy shutter, fixed focus

Sensor

Sensors

- Accelerometer (G) sensor
- Proximity (P) sensor

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2014: 21.0 hr
MobileMark 2018: 16.1 hr
JEITA 2.0: 23.9 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^[1]

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	WUXGA (1920x1200)	Multi-touch	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, low blue light
14.0"	WUXGA (1920x1200)	Multi-touch	IPS	400 nits	Anti-reflection, Anti-smudge	16:10	1000:1	100% sRGB	170°	Low power, low blue light
14.0"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, ThinkPad® Privacy Guard
14.0"	WQUXGA (3840x2400)	Multi-touch	IPS	500 nits	Anti-reflection, Anti-smudge	16:10	1500:1	100% DCI-P3	170°	Low blue light, DisplayHDR™ 400

Touchscreen

Capacitive-type on-cell multi-touch, supports 10-point touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Multi-mode

Multi-mode

Laptop, tent, stand, and tablet modes supported by 360° hinge

Input Device

Pen

ThinkPad Pen Pro - 10 for X1 Yoga® Gen 6, with built-in rechargeable battery, 4096 levels of pressure sensitivity, on-board garaged and rechargeable

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical[1]

Dimensions (WxDxH)

314.4 x 223 x 14.99 mm (12.38 x 8.78 x 0.59 inches)

Weight

Starting at 1.399 kg (3 lbs)

Case Color

Storm grey

Case Material

Aluminium (top), aluminium (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth^{[2][3]}

Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN^{**}

- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- Qualcomm® Snapdragon™ X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6 full features might be limited by country-level restrictions.

Ports

^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad X1 Yoga Gen 6](#)

Monitor Cable

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Human Presence Detection

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1][2]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>
2. No base warranty is for special bid only.

ENVIRONMENTAL

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) Intel Evo™ Platform
- TÜV Rheinland® Dynamic Privacy Filter (DPF) Certification (Privacy Guard models)
- (Optional) TÜV Rheinland Low Blue Light

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OVERVIEW



1. Thunderbolt 4	5. Pen slot
2. Thunderbolt 4	6. Headphone / microphone combo jack (3.5mm)
3. USB 3.2 Gen 1	7. USB 3.2 Gen 1 (Always On)
4. HDMI	8. Kensington Nano Security Slot

- Notes:
- Optional nano-SIM card slot on the right side (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i5 / i7 Processor

Processor**^[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris® Xe Graphics
Core i5-1245U	10 (2 P-core + 8 E-core)	12	P-core 1.6GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1255U	10 (2 P-core + 8 E-core)	12	P-core 1.7GHz / E-core 1.2GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1265U	10 (2 P-core + 8 E-core)	12	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i5-1250P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1270P	12 (4 P-core + 8 E-core)	16	P-core 2.2GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.5GHz	18MB	LPDDR5-5200	Intel Iris Xe Graphics
Core i7-1280P	14 (6 P-core + 8 E-core)	20	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	24MB	LPDDR5-5200	Intel Iris Xe Graphics

Notes:

1. i7-1280P is NOT available in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	TGP	Key Features
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12.1

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ and HDMI®)

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@60Hz

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^{[1][2]}

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, 8-channel

Memory Type^[3]

LPDDR5-5200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. 8GB memory is NOT available in EMEA.
3. Installed memory is actually 6400MHz but run at 5200MHz due to processor limitation

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2242/2280 SSD

Storage Type^{*[2]}

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. PCIe x4 SSD may be PCIe 3.0x4 or PCIe 4.0x4 as substitution.
512GB and 1TB M.2 2280 PCIe 4x4 SSD are NOT available in EMEA.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2 woofers and 0.8W x2 tweeters, Dolby® Atmos®

Microphone

Four microphones, quad-array, 360° far-field, Dolby Voice

Camera^{**}

- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- IR & FHD 1080p discrete, MIPI, with privacy shutter & Computer Vision, fixed focus

Sensor

Sensors

- Accelerometer (G) sensor
- Proximity (P) sensor

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 14.9 hr with 848 performance score @250nits
JEITA 2.0: up to 24.5 hr @150nits
Local video playback: up to 19.7 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 14.2 hr with 820 performance score @200nits
MobileMark 25: up to 11.3 hr with 608 performance score @250nits
JEITA 2.0: up to 24.1 hr @150nits
Local video playback: up to 19.7 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 14.0 hr with 810 performance score @200nits
MobileMark 25: up to 11.0 hr with 614 performance score @250nits
JEITA 2.0: up to 21.8 hr @150nits
Local video playback: up to 19.3 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA (touch), Intel i5-1235U, 8GB LPDDR5, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (touch), Intel i5-1240P, 16GB LPDDR5, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 3: WUXGA (touch), Intel i7-1260P, 16GB LPDDR5, Win 11, 57Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter^{**[1][2]}

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.
2. In EMEA only 65W USB-C slim AC adapters are available.

DESIGN

Display

Display^{**[1]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	WUXGA (1920x1200)	Multi-touch	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, Eyesafe® Certified
14.0"	WUXGA	Multi-	IPS	400 nits	Anti-	16:10	1000:1	100%	170°	Low power,

	(1920x1200)	touch			reflection, Anti-smudge			sRGB		Eyesafe Certified
14.0"	WUXGA (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	ThinkPad® Privacy Guard, TUV ePrivacy Certification
14.0"	WQUXGA (3840x2400)	Multi-touch	OLED	SDR 400nits, HDR 500nits	Anti-reflection, Anti-smudge	16:10	1000000:1	100% DCI-P3	170°	Low power, Dolby Vision™, DisplayHDR™ 400, Eyesafe Certified

Touchscreen

OGS (One Glass Solution) multi-touch, supports 10-point touch

Notes:

1. California Electronic Waste Recycling Fee
- In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Multi-mode

Multi-mode

Laptop, tent, stand, and tablet modes supported by 360° hinge

Input Device

Pen

Lenovo Integrated Pen, with built-in rechargeable battery, 4096 levels of pressure sensitivity, on-board garaged and rechargeable

Keyboard

6-row, spill-resistant, air intake design, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad, 56 x 110 mm (2.20 x 4.33 inches)

Mechanical^[1]

Dimensions (WxDxH)

314.4 x 222.3 x 15.53 mm (12.38 x 8.75 x 0.61 inches)

Weight

Starting at 1.38 kg (3.04 lbs)

Case Color

Storm grey

Case Material

Aluminium (top), aluminium (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®**^{[2][3]}

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom FM350-GL 5G NR module with embedded eSIM functionality, M.2 Card
- Fibocom L860-GL-16, 4G LTE CAT16, MIMO 4x4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports⁽¹⁾

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via Thunderbolt / USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad X1 Yoga® Gen 7](#)

Monitor Cable

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Firmware Resiliency 3.0

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Computer Vision-based User Presence Sensing including lock on leave
- Mirametrix Glance
- Tile ready

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Enterprise
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

95% PCC recycled plastic used in speaker enclosure
25-30% PCC recycled plastic used in the 57Wh battery
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)

- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) Eyesafe Certified
- (Optional) Intel Evo™ Platform
- TÜV Rheinland® Dynamic Privacy Filter (DPF) Certification (Privacy Guard models)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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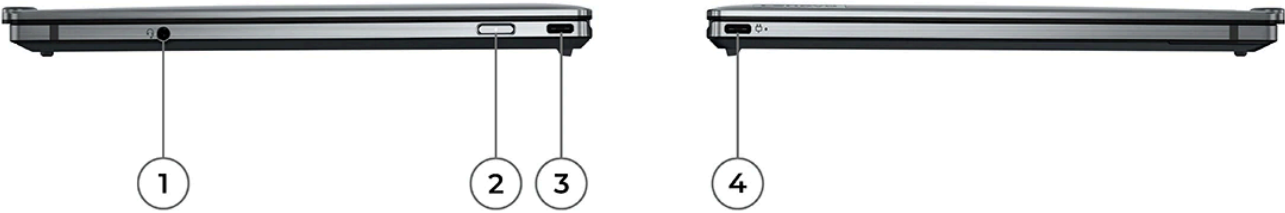


intel



intel

OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	3. USB4
2. Power button	4. USB4

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 5 PRO 6650U	6	12	2.9GHz	4.5GHz	3MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon™ 660M Graphics
AMD Ryzen 7 PRO 6850U	8	16	2.7GHz	4.7GHz	4MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon 680M Graphics
AMD Ryzen 7 PRO 6860Z	8	16	2.7GHz	4.725GHz	4MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon 680M Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Fedora Linux
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
AMD Radeon 660M	Integrated	Shared	DirectX® 12
AMD Radeon 680M	Integrated	Shared	DirectX 12

Monitor Support

Monitor Support^[1]

Supports up to 3 independent displays (native display and 2 external monitors via USB4®)

- USB4 supports up to 8K@30Hz

Notes:

1. 8K resolution support needs 2 display pipes. That is, simultaneous display number will “-1” when 8K resolution displayed.

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR5-6400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the

technology develops.

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2242 SSD

Storage Slot

One M.2 2242 PCIe® Gen 4x4 slot, supports M.2 2242 SSD

Storage Type

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2, Dolby® Atmos®

Microphone

Dual array microphone, 360° far-field, Dolby Voice

Camera**

- IR & FHD 1080p hybrid, with E-camera shutter, fixed focus
- IR & FHD 1080p discrete, with E-camera shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 51.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Battery Life^[1]

Configuration 1 (max battery life)

MobileMark® 2018: up to 18.33 hr with 666 performance score @200nits

MobileMark 25: up to 16.66 hr with 759 performance score @250nits

JEITA 2.0: up to 22.8 hr @150nits

Local video playback: up to 22.8 hr @150nits

Alternate configuration 2

MobileMark 2018: up to 17.93 hr with 651 performance score @200nits

MobileMark 25: up to 14.3 hr with 785 performance score @250nits

JEITA 2.0: up to 22.1 hr @150nits

Local video playback: up to 21.35 hr @150nits

Alternate configuration 3

MobileMark 2018: up to 7.81 hr with 635 performance score @200nits

MobileMark 25: up to 7.4 hr with 794 performance score @250nits

JEITA 2.0: up to 11.71 hr @150nits

Local video playback: up to 13.55 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA (non-touch), AMD Ryzen 7 PRO 6850U, 16GB LPDDR5, Win 11, 51.5Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (non-touch), AMD Ryzen 5 PRO 6650U, 16GB LPDDR5, Win 11, 51.5Wh battery, best power efficiency power mode

Alternate configuration 3: 2.8K OLED (touch), AMD Ryzen 5 PRO 6650U, 32GB LPDDR5, Win 11, 51.5Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft® link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter**[1][2]

- 65W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

- AC adapter offerings depend on the country.
- No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	1500:1	100% sRGB	178°	Low power, TÜV Low Blue Light, 91.6% screen to body ratio
13.3"	WUXGA (1920x1200)	On-cell touch	IPS	400 nits	Anti-reflection, Anti-smudge	16:10	1500:1	100% sRGB	178°	Low power, TÜV Low Blue Light, 91.6% screen to body ratio
13.3"	2.8K (2880x1800)	OGS touch	OLED	SDR 400nits, HDR 500nits	Anti-reflection, Anti-smudge	16:10	100000:1	100% DCI-P3	175°	TÜV Low Blue Light, Dolby Vision™, 91.6% screen to body ratio

Touchscreen**

- OGS (One Glass Solution) multi-touch, supports 10-point touch
- On-cell touch, supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Pen

No pen (pen sold separately)

Keyboard

6-row, spill-resistant, edge-to-edge, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch Haptic ForcePad, 67 x 120 mm (2.64 x 4.72 inches)

Mechanical^[1]

Dimensions (WxDxH)

294.4 x 199.6 x 13.99 mm (11.59 x 7.86 x 0.55 inches)

Weight

Models	Weight
Touch models	Starting at 1.26 kg (2.78 lbs)
Non-touch models	Starting at 1.19 kg (2.63 lbs)

Case Color**

- Arctic grey (top), black (bottom)
- Black (top), black (bottom)
- Bronze with black vegan leather (top), black (bottom)

Case Material

Aluminium (top), aluminium (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®^{[2][3]}

Qualcomm® NFA-725A Wi-Fi® 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

No support

Notes:

1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
3. Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]

Standard Ports

- 2x USB4 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
- USB 2.0: 480 Mbit/s;
 - USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
 - USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
 - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
 - Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® Z13 Gen 1](#)

Monitor Cable

Monitor Cable

- Lenovo USB-C to HDMI® Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified, with Microsoft Pluton TPM 2.0 integrated in SoC
- Microsoft Pluton TPM 2.0 integrated in SoC

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader in keyboard key, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Self-healing BIOS

Other Security

- E-Camera shutter
- IR camera for Windows Hello
- Mirametrix Glance

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty**^{[1][2]}

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service

- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>
2. No base warranty is for special bid only.

ENVIRONMENTAL

Sustainability

Material

75% post-consumer recycled aluminum
97% PCC recycled plastic used in speaker enclosure
97% PCC recycled plastic used in the 50Wh battery
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

TÜV Rheinland® Low Blue Light

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



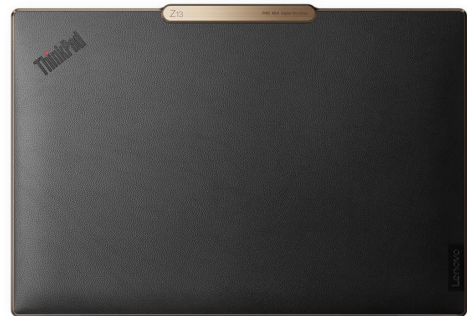
AMD



AMD



AMD



AMD



AMD

OVERVIEW



1. Power button	5. USB4
2. Headphone / microphone combo jack (3.5mm)	6. USB4
3. USB-C 3.2 Gen 2	7. SD card reader
4. Kensington Nano Security Slot	

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 / 9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 5 PRO 6650H	6	12	3.3GHz	4.5GHz	3MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon™ 660M Graphics
AMD Ryzen 7 PRO 6850H	8	16	3.2GHz	4.7GHz	4MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon 680M Graphics
AMD Ryzen 9 PRO 6950H	8	16	3.3GHz	4.9GHz	4MB L2 / 16MB L3	LPDDR5-6400	AMD Radeon 680M Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Fedora Linux
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	Key Features
AMD Radeon 660M	Integrated	Shared	DirectX® 12
AMD Radeon 680M	Integrated	Shared	DirectX 12
AMD Radeon RX 6500M	Discrete	4GB GDDR6	DirectX 12

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 external monitors via USB4® or USB-C®)

- USB4 supports up to 8K@30Hz
- USB-C supports up to 4K@60Hz (4 displays output), 5K@60Hz (3 displays output) or 5K@120Hz (up to 2 displays output)

Notes:

1. 8K resolution support needs 2 display pipes. That is, simultaneous display number will “-1” when 8K resolution displayed.

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

LPDDR5-6400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 4x4 slot, supports M.2 2242/2280 SSD

Storage Type^{**[2]}

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe x4	256GB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB	Opal2

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

2. PCIe x4 SSD may be PCIe 3.0x4 or PCIe 4.0x4 as substitution.

Removable Storage

Card Reader

SD card reader, supports UHS-II SD card

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2, Dolby® Atmos®

Microphone

Dual array microphone, 360° far-field, Dolby Voice

Camera^{**}

- IR & FHD 1080p hybrid, with E-camera shutter, fixed focus
- IR & FHD 1080p discrete, with E-camera shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 72Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Battery Life^[1]

Configuration 1 (max battery life)
MobileMark® 2018: up to 20.5 hr with 657 performance score @200nits
MobileMark 25: up to 20.0 hr with 624 performance score @250nits
JEITA 2.0: up to 25.9 hr @150nits
Local video playback: up to 28.2 hr @150nits

Alternate configuration 2
MobileMark 2018: up to 19.4 hr with 635 performance score @200nits
MobileMark 25: up to 19.0 hr with 524 performance score @250nits
JEITA 2.0: up to 25.6 hr @150nits
Local video playback: up to 24.6 hr @150nits

Alternate configuration 3
MobileMark 2018: up to 9.4 hr with 619 performance score @200nits
MobileMark 25: up to 6.9 hr with 485 performance score @250nits
JEITA 2.0: up to 9.1 hr @150nits
Local video playback: up to 13.6 hr @150nits

Notes:

1. Configuration 1 (max battery life): WUXGA (non-touch), AMD Ryzen 7 PRO 6850H, 16GB LPDDR5, Win 11, 72Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (touch), AMD Ryzen 7 PRO 6850H, 16GB LPDDR5, Win 11, 72Wh battery, best power efficiency power mode
Alternate configuration 3: WQUXGA OLED (touch), AMD Ryzen 5 PRO 6650H, 16GB LPDDR5, Win 11, 72Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using [MobileMark 2018](#), [MobileMark 25](#), JEITA 2.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary and depends on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to [Microsoft* link](#) for more information about the Windows Performance power slider.

Power Adapter

Power Adapter^[1]

135W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display^{**[1]}

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
16.0"	WUXGA (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	Horizontal: +/- 89°, vertical: +/- 80°	Low power, TÜV Low Blue Light, 92.3% screen to body ratio
16.0"	WUXGA (1920x1200)	On-cell touch	IPS	400 nits	Anti-reflection, Anti-smudge	16:10	1000:1	100% sRGB	Horizontal: +/- 89°, vertical: +/- 80°	Low power, TÜV Low Blue Light, 92.3% screen to body ratio
16.0"	WQUXGA (3840x2400)	OGS touch	OLED	SDR 400nits, HDR 500nits	Anti-reflection, Anti-smudge	16:10	100000:1	100% DCI-P3	Horizontal: +/- 87.5°, vertical: +/- 87.5°	Dolby Vision™, TÜV Low Blue Light, 92.3% screen to body ratio

Touchscreen^{**}

- OGS (One Glass Solution) multi-touch, supports 10-point touch
- On-cell touch, supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Pen

No pen (pen sold separately)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch Haptic ForcePad, 67 x 120 mm (2.64 x 4.72 inches)

Mechanical^[1]

Dimensions (WxDxH)

354.4 x 237.4 x 15.8 mm (13.95 x 9.35 x 0.62 inches)

Weight

Models	Weight
Non-touch models	Starting at 1.81 kg (3.99 lbs)
Multi-touch models	Starting at 1.94 kg (4.27 lbs)

Case Color

Arctic grey (top), black (bottom)

Case Material

Aluminium (top), aluminium (bottom)

Notes:

- 1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet^[1]

No Ethernet

WLAN + Bluetooth®^{[2][3]}

Qualcomm® NFA-725A Wi-Fi® 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- Quectel EM05-G, 4G LTE CAT4, M.2 card
- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

No support

Notes:

- 1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
- 2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
- 3. Wi-Fi 6E full features might be limited by country level restrictions.
Wi-Fi 6E only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.

Ports^[1]

Standard Ports

- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 2x USB4 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4a)
- 1x SD card reader
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

Docking

Docking

Various docking solutions supported via USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® Z16 Gen 1](#)

Monitor Cable

Monitor Cable

- Lenovo USB-C to HDMI® Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified, with Microsoft Pluton TPM 2.0 integrated in SoC
- Microsoft Pluton TPM 2.0 integrated in SoC

Physical Locks

Kensington® Nano Security Slot, 2.5 x 6 mm

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader in keyboard key, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- System management password
- NVMe password
- USB FIDO (Fast Identity Online) device integration
- Certificate based BIOS authentication
- Self-healing BIOS

Other Security

- E-Camera shutter
- IR camera for Windows Hello
- Mirametrix Glance

MANAGEABILITY

System Management

System Management

- DASH
- Non-DASH

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service

- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Sustainability

Material

75% post-consumer recycled aluminum
97% PCC recycled plastic used in speaker enclosure
97% PCC recycled plastic used in the 70Wh battery
Low-temperature solder
90% recycled and/or sustainable packaging

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

TÜV Rheinland® Low Blue Light

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



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AMD



AMD



AMD



AMD

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Warranty: For a copy of applicable warranties, write to: Lenovo Warranty Information, 1009 Think Place, Morrisville, NC, 27560. Lenovo makes no representation or warranty regarding third party products or services. The Lenovo Limited Warranty applies only to Lenovo hardware products purchased for your own use, and does not transfer upon resale.

Limited warranty: Support unrelated to a warranty issue may be subject to additional charges.

Lenovo Services:

Carry-in or Mail-in Service: Parts and labor repair coverage where the customer is responsible for shipping (including packaging) or delivery to authorized warranty provider or repair center.

Depot or Courier Service: Parts and labor repair coverage where shipping (including packaging) or delivery to the repair center is paid for by Lenovo.

Expedited Depot: Parts and labor coverage with expedited turnaround. Shipping (including packaging) or delivery to the repair center is paid for by Lenovo.

Onsite / In-home Service: Parts and labor repair coverage where labor is provided onsite at your place of business.

If Lenovo determines your product problem is covered by the product warranty and cannot be resolved over the telephone, a technician will be dispatched to arrive onsite, typically the next day.

International Warranty Service (IWS): PC repair coverage for customers who require a critical warranty repair while travelling internationally. Visit www.lenovo.com/internationalwarranty for details. Visit www.lenovo.com/warranty for Lenovo Warranty Services terms and conditions for complete details and restrictions.

Included software: may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.

Battery life: Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

Visit <http://psref.lenovo.com/> for the latest version of Product Specifications Reference.

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Lenovo 1009 Think Place Morrisville, NC 27560 U.S.A.

PSREF

Product Specifications Reference

ThinkPad Tablets



ThinkPad

Version 586
November 24, 2021

Lenovo™

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Summary of Changes

This section describes the technical changes made in this edition.

This edition might also include minor corrections and editorial changes which are not identified.

November 24, 2021 - Version 586

Additions in this update

► **New product(s)**

None

► **Spec updated**

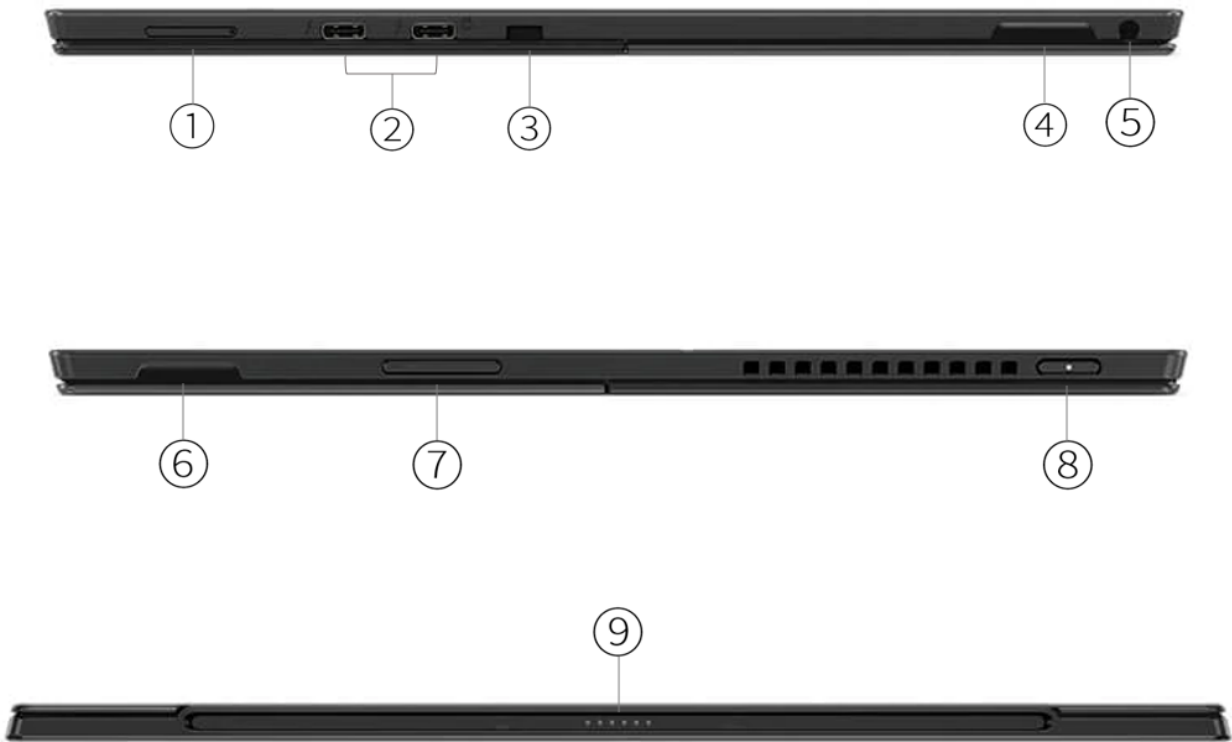
ThinkPad X12 Detachable

Withdrawals in this update

► **Withdrawn product(s)**

None

OVERVIEW



1. Nano-SIM-card and microSD card slot	6. Pen holder slot
2. USB-C 3.2 Gen 1 / Thunderbolt 3	7. Volume button
3. Mini security-lock slot	8. Power button
4. Pen holder slot	9. Pogo pin connector (6-point)
5. Headphone / microphone combo jack (3.5mm)	

- Notes:
- Rest hole in behind (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

8th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-8250U	4	8	1.6GHz	3.4GHz	6MB	LPDDR3-2133	Intel UHD Graphics 620
Core i5-8350U	4	8	1.7GHz	3.6GHz	6MB	LPDDR3-2133	Intel UHD Graphics 620
Core i7-8550U	4	8	1.8GHz	4.0GHz	8MB	LPDDR3-2133	Intel UHD Graphics 620
Core i7-8650U	4	8	1.9GHz	4.2GHz	8MB	LPDDR3-2133	Intel UHD Graphics 620

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics 620	Integrated	Shared	DirectX® 12

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR3-2133

Storage

Storage Support

One drive, up to 1TB M.2 2280 SSD

Storage Type**

Disk Type	Interface	Offering	Security
M.2 2280 SSD	SATA 6Gb/s	256GB	Opal2
M.2 2280 SSD	SATA 6Gb/s	128GB	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	256GB / 512GB / 1TB	Opal2

Removable Storage

Card Reader**

- MicroSD card slot (WLAN model)
- Nano-SIM + microSD card slot (WWAN model)

Multi-Media

Speakers

Stereo speakers, 1W x2

Microphone

Dual array microphone

Camera**[1]

- Front 2.0-megapixel RGB, fixed focus, rear 8.0-megapixel RGB, autofocus
- Front 2.0-megapixel IR & RGB hybrid, fixed focus; rear 8.0-megapixel RGB, autofocus
- No camera

Notes:

1. IR camera is mutually exclusive with NFC

Sensor

Vibration Motor

No support

Sensors

- Accelerometer (G) sensor
- Ambient light sensor (ALS)
- Gyroscope sensor

Battery

Battery

Integrated Li-Polymer 42Wh battery

Max Battery Life[1]

MobileMark® 2014: 9.5 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**

- 45W USB-C (2-pin) AC adapter
- 45W USB-C (3-pin) AC adapter
- 65W USB-C (2-pin) AC adapter
- 65W USB-C (3-pin) AC adapter

DESIGN

Display

Display[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.0"	QHD+ (3000x2000)	Multi-touch	IPS	400 nits	Anti-reflection, Anti-smudge	3:2	1200:1	-	160°	Corning® Gorilla® Glass

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo® charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Pen**[1]

- Lenovo Pen Pro with built-in rechargeable battery, 4096 levels of pressure sensitivity
- ThinkPad® Pen Pro with replaceable AAAA alkaline battery, 4096 levels of pressure sensitivity, on-board garaged (using

- pen holder)
- No pen (pen sold separately)

Notes:

- ThinkPad Pen Pro: might not be installed with an AAAA alkaline battery

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Tablet with folio keyboard	304.1 x 226 x 14.4 mm (11.97 x 8.9 x 0.57 inches)
Tablet	304.1 x 226 x 8.9 mm (11.97 x 8.9 x 0.35 inches)

Weight

Models	Weight
Tablet with folio keyboard	Tablet: 0.89 kg (1.96 lbs) Tablet with folio keyboard: 1.27 kg (2.8 lbs)
Tablet	0.89 kg (1.96 lbs)

Case Color

Black

Case Material

Magnesium-aluminium

Others

Kensington® Security Slot

Buttons

- Power button
- Volume button

CONNECTIVITY

Network

WLAN + Bluetooth®

Intel Dual-Band Wireless-AC 8265, 802.11ac Dual-Band 2x2 Wi-Fi® + Bluetooth 4.2

WWAN**

- Integrated Mobile Broadband 4G LTE-A, Sierra Wireless EM7430
- Integrated Mobile Broadband 4G LTE-A, Sierra Wireless EM7430C
- Integrated Mobile Broadband 4G LTE-A, Sierra Wireless EM7455
- No support

SIM Card

- Nano-SIM Card, Verizon LTE (US)
- No SIM card inbox

NFC^[1]

- Near Field Communication
- No support

Location Services**

Models	Location
WLAN model	No location service
WWAN model	GPS function integrated in WWAN module

Notes:

- NFC is mutually exclusive with IR camera

Ports^[1]

Standard Ports

- 2x USB-C 3.2 Gen 1 / Thunderbolt™ 3 (support data transfer, Power Delivery and DisplayPort™)
- 1x Nano-SIM + microSD card slot
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Pen holder slot
- 1x Pogo pin connector (6-point)

Docking***

- Thin Keyboard (magnetic detachable)
- ThinkPad USB-C Dock Gen 2
- No dock

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3: 40 Gbit/s;
FireWire 400: 400 Mbit/s;
FireWire 800: 800 Mbit/s

Monitor Cable

Monitor Cable***

- Lenovo USB-C to HDMI® Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Disabled (in some regions)

Fingerprint Reader

Touch style fingerprint reader on display cover

MANAGEABILITY

System Management

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty**

- 1-year depot service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: 5°C (41°F) to 43°C (109°F)
- Maximum temperature when operating under unpressurized conditions: 31.3°C (88°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 5000 m (16,404 ft)

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- Lenovo USB-C Travel Hub
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- GREENGUARD®
- Low Halogen
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Power button	5. Thunderbolt 4
2. Volume button	6. Nano-SIM card slot
3. Kensington Nano Security Slot	7. USB-C 3.2 Gen 2
4. Headphone / microphone combo jack (3.5mm)	

- Notes:
- Pogo pin connector (8-point) not shown on the sample product above

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1110G4	2	4	2.5GHz	3.9GHz	6MB	LPDDR4x-4266	Intel UHD Graphics
Core i5-1130G7	4	8	1.8GHz	4.0GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1140G7	4	8	1.8GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1160G7	4	8	2.1GHz	4.4GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1180G7	4	8	2.2GHz	4.6GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise LTSC
- Windows 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- No operating system

Graphics

Graphics**

Graphics	Type	Memory	TGP	Key Features
Intel UHD Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX 12

Monitor Support

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via USB-C (5120x3200@60Hz) or Thunderbolt™ (5120x3200@60Hz)

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type**[1]

- LPDDR4x-3733
- LPDDR4x-4266

Notes:

- 8GB or 16GB LPDDR4x-4266 soldered, dual-channel capable

Storage

Storage Support

One drive, up to 1TB M.2 2242 SSD

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	128GB / 256GB / 512GB / 1TB	-

Multi-Media

Speakers

Stereo speakers, Realtek® ALC3306-GRT codec, 1W x2, Dolby® Audio™

Microphone

Dual array microphone, 360° far-field for Cortana, near-field for Alexa

Camera

Front 5.0-megapixel IR & RGB hybrid user-facing camera, webcam privacy shutter, fixed focus
Rear 8.0-megapixel RGB world-facing, autofocus

Sensor

Vibration Motor

No support

Sensors

- Accelerometer (G) sensor
- Proximity (P) sensor (WWAN model)
- Gyroscope sensor
- Hall sensor
- Inclinator sensor

Battery

Battery

Integrated Li-Polymer 42Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life^[1]

MobileMark® 2018: 10.36 hr
JEITA 2.0: 12.42 hr

Charging Time

To fully charged
In operation: 2.0 hr
Off - 80%: 0.83 hr
Off - 100%: 2.0 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**

- 45W USB-C (2-pin) AC adapter
- 45W USB-C (3-pin) AC adapter
- 65W USB-C slim (3-pin) AC adapter
- 65W USB-C slim (2-pin) AC adapter
- 65W USB-C (2-pin) AC adapter
- 65W USB-C (3-pin) AC adapter
- No power adapter

DESIGN

Display

Display^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
12.3"	FHD+ (1920x1280)	Multi-touch	IPS	400 nits	Anti-reflection, Anti-smudge	3:2	1500:1	100% sRGB	178°	Corning® Gorilla® Glass

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Touchscreen

GF2 Direct Bonding, capacitive-type multi-touch, supports 10-point touch

Notes:

1. California Electronic Waste Recycling Fee
- In California, per state law, Lenovo® charges an electronic waste recycling fee on this covered device at the time of sale of the product.
For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Pen**[1]

- Lenovo Digital Pen with replaceable AAAA alkaline battery, 4096 levels of pressure sensitivity
- Lenovo Digital Pen without replaceable AAAA alkaline battery, 4096 levels of pressure sensitivity
- Lenovo Precision Pen, 4096 levels of pressure sensitivity, magnetically attached to the system
- No pen (pen sold separately)

Notes:

1. Lenovo Precision Pen: might not be installed with an AAAA alkaline battery

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Tablet with folio keyboard	Tablet: 283.3 x 203.5 x 8.8 mm (11.15 x 8.01 x 0.35 inches); Folio keyboard: 283.3 x 217.8 x 5.7 mm (11.15 x 8.57 x 0.22 inches); Total: 283.3 x 217.8 x 14.5 mm (11.15 x 8.57 x 0.57 inches)
Tablet	Tablet: 283.3 x 203.5 x 8.8 mm (11.15 x 8.01 x 0.34 inches)

Weight

Models	Weight
Tablet with folio keyboard	Tablet: 760 g (1.67lbs) Folio keyboard: 340 g (0.75lbs) Total: 1,100 g (2.42 lbs)
Tablet	Tablet: 760 g (1.67 lbs)

Case Color

Black

Case Material[1]

Magnesium-aluminium

Others

- Hinge locking: 170°
- Kensington® Nano Security Slot

Buttons

- Power button
- Volume button

Notes:

1. Surface treatment: Peachskin paint

CONNECTIVITY

Network

WLAN + Bluetooth®

Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, MU-MIMO

WWAN

- Integrated Mobile Broadband 4G LTE-A, CAT9, Fibocom L850-GL, M.2 card

- No support

SIM Card

- Gemalto eSIM
- No SIM card inbox

NFC

- Near Field Communication
- No support

Wi-Fi Direct

Support (Miracast®)

Wi-Fi Display

Support

Location Services**

Models	Location
WLAN model	No location service
WWAN model	GPS + GLONASS + A-GPS

Ports^[1]

Standard Ports

- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4)
- 1x Nano-SIM card slot
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Pogo pin connector (8-point)

Docking

- ThinkPad® X12 Folio Keyboard with touchpad (pogo pin, detachable), 3-level backlight
- No dock

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3: 40 Gbit/s;
FireWire 400: 400 Mbit/s;
FireWire 800: 800 Mbit/s

Monitor Cable

Monitor Cable***

- Lenovo USB-C to HDMI® Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Fingerprint Reader

- Touch style fingerprint reader on folio keyboard, match-on-chip
- No fingerprint reader

BIOS Security

- Supervisor password

- Power-on password
- Hard disk password
- System management password
- Self-healing BIOS

MANAGEABILITY

System Management

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty**

- 1-year depot service
- 1-year depot with 2-year system board service
- 1-year limited onsite service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C Port Replicator
- None

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold (tablet mode)
- EPEAT Silver (notebook mode)
- ENERGY STAR® 8.0
- ErP Lot 3
- FAA certified

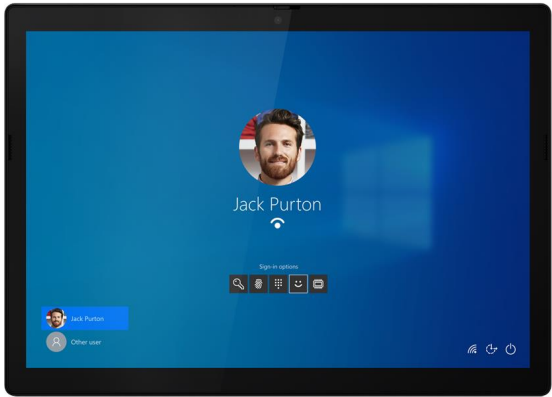
- Low Halogen
- TCO Certified 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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Limited warranty: Support unrelated to a warranty issue may be subject to additional charges.

Lenovo Services:

Carry-in or Mail-in Service: Parts and labor repair coverage where the customer is responsible for shipping (including packaging) or delivery to authorized warranty provider or repair center.

Depot or Courier Service: Parts and labor repair coverage where shipping (including packaging) or delivery to the repair center is paid for by Lenovo.

Expedited Depot: Parts and labor coverage with expedited turnaround. Shipping (including packaging) or delivery to the repair center is paid for by Lenovo.

Onsite / In-home Service: Parts and labor repair coverage where labor is provided onsite at your place of business.

If Lenovo determines your product problem is covered by the product warranty and cannot be resolved over the telephone, a technician will be dispatched to arrive onsite, typically the next day.

International Warranty Service (IWS): PC repair coverage for customers who require a critical warranty repair while travelling internationally. Visit www.lenovo.com/internationalwarranty for details. Visit www.lenovo.com/warranty for Lenovo Warranty Services terms and conditions for complete details and restrictions.

Included software: may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.

Battery life: Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

Visit <http://psref.lenovo.com/> for the latest version of Product Specifications Reference.

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Lenovo 1009 Think Place Morrisville, NC 27560 U.S.A.

PSREF

Product Specifications Reference

ThinkCentre

ThinkCentre

Version 598
August 03, 2022

Lenovo™

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Summary of Changes

This section describes the technical changes made in this edition.

This edition might also include minor corrections and editorial changes which are not identified.

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Additions in this update

► **New product(s)**

ThinkCentre TIO Flex 22i

ThinkCentre TIO Flex 27i

► **New model(s)**

None

► **Others**

None

Withdrawals in this update

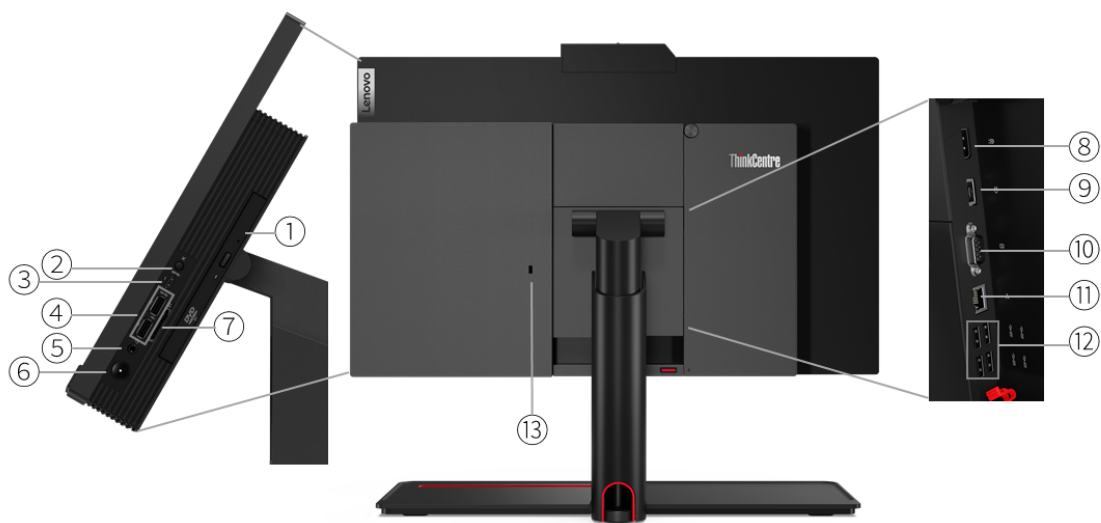
► **Withdrawn product(s)**

None

► **Withdrawn model(s)**

None

OVERVIEW



1. Optical drive *	8. DisplayPort
2. Microphone mute button	9. Power connector
3. USB-C 3.2 Gen 1	10. Serial *
4. 1x USB 3.2 Gen 2 + 1x USB 3.2 Gen 1	11. Ethernet (RJ-45)
5. Headphone / microphone combo jack (3.5mm)	12. 4x USB 3.2 Gen 1
6. Power button	13. Kensington Security Slot
7. Card reader *	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 10th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5900	2	2	3.4GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5905	2	2	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5920	2	2	3.5GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6400	2	4	4.0GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6500	2	4	4.1GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6600	2	4	4.2GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	1x DP 1.2	4096x2304@60Hz(DP)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x DP 1.2	4096x2304@60Hz(DP)	DirectX 12

Notes:

- The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 2 independent displays via native display and 1 external monitor; supports external monitor via DisplayPort™

Chipset

Chipset

Intel H470 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-2933

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type^{**}

- DDR4-2666
- DDR4-2933

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 2TB
- M.2 SSD up to 1TB
- Optional Intel Optane™ Memory, M.2

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	-
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical^{**}

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233 codec

Speakers

Stereo speakers, 2W x2

Microphone

Dual array microphone

Camera**

- FHD 1080p, with ThinkShutter (physical switch on/off)
- IR & FHD 1080p, with ThinkShutter (physical switch on/off), Windows Hello support
- No camera

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
135W	Adapter	89%	Autosensing
170W	Adapter	89%	Autosensing

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
21.5"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	1000:1	-	horizontal: +/- 89°, vertical: +/- 89°	Borderless design (88% screen to body ratio)
21.5"	FHD (1920x1080)	Multi-touch	IPS	250 nits	Anti-glare	16:9	1000:1	-	horizontal: +/- 89°, vertical: +/- 89°	Borderless design (88% screen to body ratio)

Touchscreen

- Advanced In-cell Touch (AIT), supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Buttons

- Power button
- Microphone mute button

Form Factor

AIO (21.5 inches)

Dimensions (WxDxH)

Models	Dimensions
--------	------------

Models (with full function monitor stand, with camera)	490.14 x 199.82 x 386.05-466.04 mm (19.3 x 7.9 x 15.2-18.3 inches)
Models (with UltraFlex IV stand, with camera)	Lowest in flat mode: 490.17 x 288.17 x 197.04 mm (19.3 x 11.3 x 7.8 inches) Highest in vertical mode: 490.17 x 232.75 x 439.28 mm (19.3 x 9.2 x 17.3 inches)
Models (without stand, with ODD, with Camera)	490.14 x 57.8 x 297.75 mm (19.3 x 2.3 x 11.7 inches)
Models (without stand, without ODD, with camera)	490.14 x 46 x 297.75 mm (19.3 x 1.8 x 11.7 inches)

Weight

Models	Weight
Models (with full function monitor stand, with ODD)	Non-touch: around 7.33 kg (16.2 lbs) Touch: around 7.09 kg (15.6 lbs)
Models (with full function monitor stand, without ODD)	Non-touch: around 7.07 kg (15.6 lbs) Touch: around 6.83 kg (15.1 lbs)
Models (with UltraFlex IV stand, with ODD)	Non-touch: around 7.88 kg (17.4 lbs) Touch: around 7.65 kg (16.9 lbs)
Models (with UltraFlex IV stand, without ODD)	Non-touch: around 7.62 kg (16.8 lbs) Touch: around 7.38 kg (16.3 lbs)
Models (without stand, with ODD)	Non-touch: around 5.12 kg (11.3 lbs) Touch: around 4.88 kg (10.8 lbs)
Models (without stand, without ODD)	Non-touch: around 4.86 kg (10.7 lbs) Touch: around 4.62 kg (10.2 lbs)

Case Color

Black

Bays

- 1x 2.5" disk bay
- 1x slim ODD bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

Toolless cover and stand assembly / removal

Stand**

- Full function monitor stand, supports -5° to +30° tilt, up to 80mm lift
- UltraFlex IV stand, supports -5° to +70° tilt, up to 164mm lift (flat mode) / up to 115mm lift (vertical mode)
- No stand

Mounting

Supports VESA mount 100mm

CONNECTIVITY

Network

Onboard Ethernet

One gigabit Ethernet, Realtek RTL8111K, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®**[1]

- Realtek RTL8822BE, 802.11ac Dual Band 1x1 Wi-Fi® + Bluetooth 5.0, M.2 card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9462, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card

- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Rear Ports**^{[1][2]}

- 4x USB 3.2 Gen 1 (one supports Smart Power On)
- 1x DisplayPort
- 1x Ethernet (RJ-45)

Optional Rear Ports

1x serial

Right Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 1 (5V/3A charging)
- 1x headphone / microphone combo jack (3.5mm)

Optional Right Ports

1x card reader

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable**^{***}

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI® 1.4 dongle
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

Other Security

(Optional) ThinkShutter camera cover

BIOS Security

- Administrator password
- Power-on password
- Hard disk password

- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

Non-vPro

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

Humidity

Operating: 20% to 80%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- TCO edge
- RoHS compliant

Other Certifications

Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

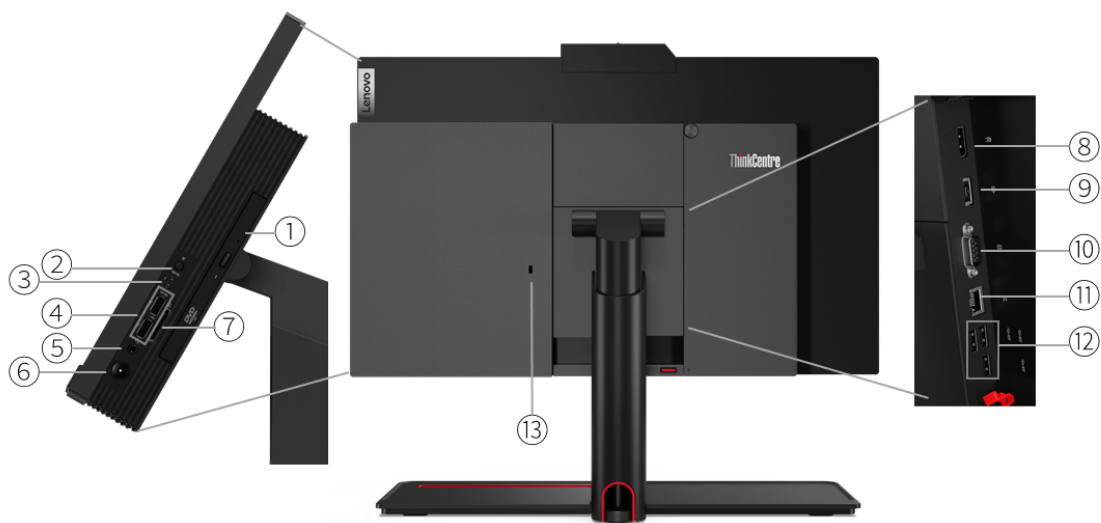
Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Optical drive *	8. DisplayPort
2. Microphone mute button	9. Power connector
3. USB-C 3.2 Gen 2	10. Serial or HDMI *
4. 1x USB 3.2 Gen 2 + 1x USB 3.2 Gen 1	11. Ethernet (RJ-45)
5. Headphone / microphone combo jack (3.5mm)	12. 3x USB 3.2 Gen 1
6. Power button	13. Kensington Security Slot
7. Card reader *	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, 10th Generation Intel Core™ i3, or 11th Generation Intel Core i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5905	2	2	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6405	2	4	4.1GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6505	2	4	4.2GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6605	2	4	4.3GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10105	4	8	3.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10305	4	8	3.8GHz	4.5GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10325	4	8	3.9GHz	4.7GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-11400	6	12	2.6GHz	4.4GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-11500	6	12	2.7GHz	4.6GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11600	6	12	2.8GHz	4.8GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i7-11700	8	16	2.5GHz	4.9GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-11900	8	16	2.5GHz	5.2GHz	16MB	DDR4-3200	Intel UHD Graphics 750

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	1x DP 1.4b, 1x optional HDMI® 2.1	4096x2304@60Hz(DP), 4096x2160@60Hz(HDMI)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x DP 1.4b, 1x optional HDMI 2.1	4096x2304@60Hz(DP), 4096x2160@60Hz(HDMI)	DirectX 12
Intel UHD graphics 730	Integrated	Shared	1x DP 1.4b, 1x optional HDMI 2.1	4096x2304@60Hz(DP), 4096x2160@60Hz(HDMI)	DirectX 12
Intel UHD graphics 750	Integrated	Shared	1x DP 1.4b, 1x optional HDMI 2.1	4096x2304@60Hz(DP), 4096x2160@60Hz(HDMI)	DirectX 12

Notes:

- The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitor; supports external monitors via DisplayPort™ and optional HDMI

Chipset

Chipset
Intel B560 chipset

Memory

Max Memory^[1]
Up to 64GB DDR4-3200

Memory Slots
Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type^{**[2]}

- DDR4-2666
- DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. Installed memory is actually 3200MHz, but may run at 2666MHz, 2933 MHz or 3200MHz depending on the memory support capability of processor

Storage

Storage Support^[1]
Up to two drives, 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 2TB
- M.2 SSD up to 1TB

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	-
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal

RAID
No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical^{**}

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader
- No card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC233 codec

Speakers
Stereo speakers, 2W x2, Dolby® Atmos®

Microphone

- Dual array microphone
- No microphone

Camera**

- FHD 1080p, with ThinkShutter (physical switch on/off)
- IR & FHD 1080p, with ThinkShutter (physical switch on/off), Windows Hello support
- No camera

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
135W	Adapter	89%	Autosensing
170W	Adapter	89%	Autosensing

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
21.5"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	1000:1	72% NTSC	horizontal: +/- 89°, vertical: +/- 89°	Borderless design (88% screen to body ratio), support low blue light mode
21.5"	FHD (1920x1080)	Multi-touch	IPS	250 nits	Anti-glare	16:9	1000:1	72% NTSC	horizontal: +/- 89°, vertical: +/- 89°	Borderless design (88% screen to body ratio), support low blue light mode

Touchscreen

- Advanced In-cell Touch (AIT), supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Buttons

- Power button
- Microphone mute button

Form Factor

AIO (21.5 inches)

Dimensions (WxDxH)

490.1 x 55.6 x 312.3 mm (19.3 x 2.2 x 12.3 inches), no stand, with ODD, with camera

Weight

8.1 kg (17.9 lbs) at maximum configuration

Case Color

Black

Bays

- 1x 2.5" disk bay
- 1x slim ODD bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

Toolless cover and stand assembly / removal

Stand**

- Full function monitor stand, supports -5° to +30° tilt, up to 80mm lift
- UltraFlex IV stand, supports -5° to +70° tilt, up to 164mm lift (flat mode) / up to 115mm lift (vertical mode)
- No stand

Mounting

Supports VESA mount 100mm

Others

Supports Smart Power On

CONNECTIVITY

Network

Onboard Ethernet

One gigabit Ethernet, Realtek RTL8111K, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®^[1]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Rear Ports^{[1][2]}

- 3x USB 3.2 Gen 1
- 1x DisplayPort
- 1x Ethernet (RJ-45)

Optional Rear Ports**

- 1x HDMI
- 1x serial

Right Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 2 (support data transfer and 5V@3A charging)
- 1x headphone / microphone combo jack (3.5mm)

Optional Right Ports

1x card reader

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

Other Security

(Optional) ThinkShutter camera cover

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

Non-vPro

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service

- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

Humidity

Operating: 20% to 80%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- TCO edge
- RoHS compliant

Other Certifications

Other Certifications

- TÜV Rheinland® Eye Comfort Certification
- TÜV Rheinland Low Blue Light
- (Optional) TÜV Rheinland Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

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OVERVIEW



1. 3x USB 3.2 Gen 1	7. Microphone mute button
2. USB-C 3.2 Gen 2 (data transfer, 15W charging)	8. PC / monitor mode switch
3. Ethernet (RJ-45)	9. 2x USB 3.2 Gen 2
4. HDMI (HDMI in / HDMI out combo port)	10. Headphone / microphone combo jack (3.5mm)
5. DisplayPort 1.4	11. Card reader *
6. Power connector	12. Power button

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G6900	2	2	3.4GHz	-	4MB	DDR4-3200	Intel UHD Graphics 710
Pentium Gold G7400	2	4	3.7GHz	-	6MB	DDR4-3200	Intel UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR4-3200	Intel UHD Graphics 730
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR4-3200	Intel UHD Graphics 770
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	DDR4-3200	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	DDR4-3200	Intel UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR4-3200	Intel UHD Graphics 770

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- No operating system

Graphics

Graphics**^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 710	Integrated	Shared	1x HDMI® 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 5120x2160@60Hz(DP)	DirectX® 12	-
Intel UHD graphics 730	Integrated	Shared	1x HDMI 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 5120x2160@60Hz(DP)	DirectX 12	-
Intel UHD graphics 770	Integrated	Shared	1x HDMI 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 5120x2160@60Hz(DP)	DirectX 12	-

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitor; supports external monitors via DisplayPort™ and HDMI; work as standalone monitor via HDMI (HDMI in / out combo)

Chipset

Chipset
Intel Q670 chipset

Memory

Max Memory^[1]
Up to 64GB DDR4-3200

Memory Slots
Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type
DDR4-3200

Notes:
1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}
Up to three drives, 2x 2.5" HDD + 1x M.2 SSD
• 2.5" HDD up to 2TB each
• M.2 SSD up to 1TB

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	-
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2280 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	Opal2

RAID^[3]
RAID 0/1 support for HDDs

Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. 2nd 2.5" HDD occupies ODD bay, and needs ODD to HDD bracket kit (optional, come with 2nd 2.5" HDD)
3. RAID is not preset by default, user can config RAID 0/1 according to the demand.

Removable Storage

Optical**
• DVD-ROM, SATA connector, slim (9.0mm)
• DVD burner (DVD±RW), SATA connector, slim (9.0mm)
• None

Card Reader
• 3-in-1 card reader (SD, SDHC, SDXC)
• No card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC256-NL codec

Speakers
Stereo speakers, 2W x2, Dolby® Atmos®

Microphone
• Dual array microphone

- No microphone

Camera**

- 5.0-megapixel, with ThinkShutter (physical switch on/off), ±20° view angle adjustable
- 5.0-megapixel, IR & RGB hybrid, with ThinkShutter (physical switch on/off), ±20° view angle adjustable, Windows Hello support
- No camera

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
180W	Fixed	90%	100V - 240V, 50-60Hz

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
21.5"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	1000:1	72% NTSC	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, low blue light, flicker free
21.5"	FHD (1920x1080)	Multi-touch	IPS	250 nits	Anti-glare	16:9	1000:1	72% NTSC	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, low blue light, flicker free

Touchscreen

- Advanced In-cell Touch (AIT), supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
- In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Buttons

- Power button
- Microphone mute button
- Monitor / PC mode switch button

Form Factor

AIO (21.5 inches)

Dimensions (WxDxH)

Models	Dimensions
--------	------------

Models (with UltraFlex V stand, with camera)	Lowest in vertical mode: 489 x 216.32 x 358.82 mm (19.25 x 8.52 x 14.13 inches) Highest in vertical mode: 489 x 216.32 x 443.31 mm (19.25 x 8.52 x 17.45 inches)
Models (with UltraFlex V stand, without camera)	Lowest in vertical mode: 489 x 216.32 x 338.32 mm (19.25 x 8.52 x 13.32 inches) Highest in vertical mode: 489 x 216.32 x 422.81 mm (19.25 x 8.52 x 16.65 inches)
Models (with full function monitor stand, with camera)	Lowest in vertical mode: 489 x 217.31 x 365.96 mm (19.52 x 8.56 x 14.41 inches) Highest in vertical mode: 489 x 217.31 x 474.97 mm (19.52 x 8.56 x 18.7 inches)
Models (with full function monitor stand, without camera)	Lowest in vertical mode: 489 x 217.31 x 345.46 mm (19.52 x 8.56 x 13.6 inches) Highest in vertical mode: 489 x 217.31 x 454.47 mm (19.52 x 8.56 x 17.89 inches)

Packaging Dimensions (WxDxH)

- With Full Function Monitor Stand: 605 x 235 x 550 mm (23.82 x 9.35 x 21.65 inches)
- With UltraFlex V Stand: 605 x 248 x 545 mm (23.82 x 9.76 x 23.46 inches)

Weight

Models	Weight
Models (with full function monitor stand, with ODD, with camera)	Around 7.678 kg (16.92 lbs)
Models (with UltraFlex V stand, with ODD, with camera)	Around 7.985 kg (17.6 lbs)

Packaging Weight

- With UltraDlex V Stand: 1.983 kg (4.37 lbs), packaging only
- With Full Function Monitor Stand: 1.867 kg (4.12 lbs), packaging only

Case Color

Black

Bays^[1]

- 2x 2.5" disk bay (2nd 2.5" HDD occupies ODD bay)
- 1x slim ODD bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

Toolless cover, stand, motherboard shielding, HDD, and memory assembly / removal

Stand**

- UltraFlex V stand, supports -5° to +70° tilt, up to 70°±2° lift (up to 179.96mm lift in flat mode / up to 84.37mm lift in vertical mode)
- Full function monitor stand, supports -5° to +20° tilt, left & right 45° swivel, 90° pivot, up to 110mm lift
- No stand

Mounting

Supports VESA mount 100mm

Others

- (Optional) Conference Call Base, 3W x4 Harman speakers, 4 digital microphones array with AI noise suppression, Physical button for Teams, USB-C® connector
- Supports Smart Power On

Notes:

1. 2nd 2.5" HDD needs ODD to HDD bracket kit (optional, come with 2nd 2.5" HDD)

CONNECTIVITY

Network

Onboard Ethernet

One gigabit Ethernet, Realtek RTL8111K, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®^[1]**

- Mediatek Wi-Fi® 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Rear Ports^{[1][2]}**

- 3x USB 3.2 Gen 1
- 1x USB-C 3.2 Gen 2 (support data transfer and 15W charging)
- 1x HDMI (HDMI in 1.4 / HDMI out 2.1 TMDS combo port)
- 1x DisplayPort 1.4
- 1x Ethernet (RJ-45)

Optional Rear Ports

1x serial

Right Ports

- 2x USB 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Optional Right Ports

1x card reader

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable****

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI dongle
- DP to VGA dongle
- HDMI to DVI dongle
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

Other Security

(Optional) ThinkShutter camera cover

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

Humidity

Operating: 20% to 80%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- TCO edge
- RoHS compliant

Other Certifications**Other Certifications**

- TÜV Rheinland® Flicker Free
- TÜV Rheinland Low Blue Light
- (Optional) TÜV Rheinland Ultra Low Noise
- UL Anti-dust

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation, Contamination by Fluids, Salt Fog)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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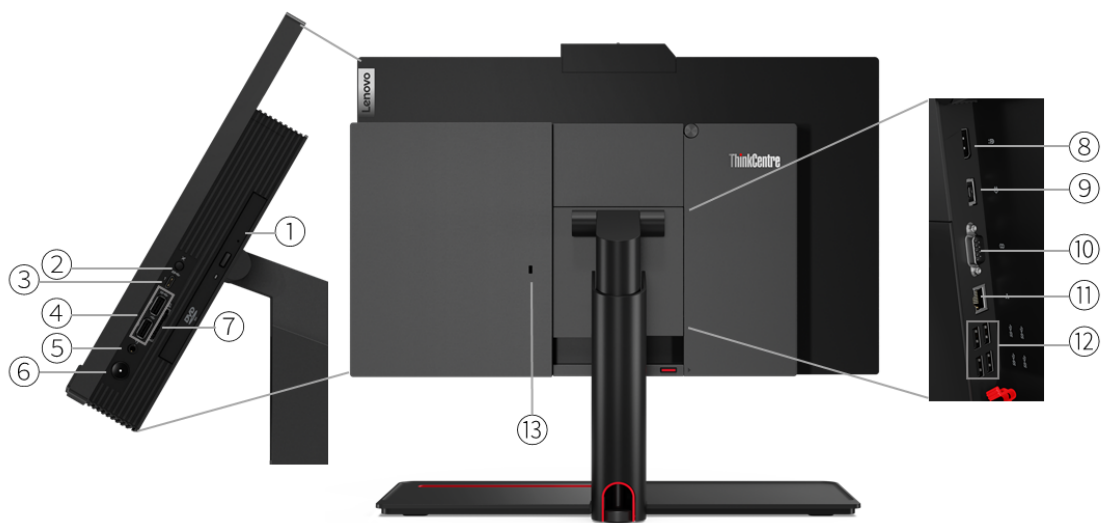


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OVERVIEW



1. Optical drive *	8. DisplayPort
2. Microphone mute button	9. Power connector
3. USB-C 3.2 Gen 1	10. Serial *
4. 2x USB 3.2 Gen 2	11. Ethernet (RJ-45)
5. Headphone / microphone combo jack (3.5mm)	12. 4x USB 3.2 Gen 1
6. Power button	13. Kensington Security Slot
7. Card reader *	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 10th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5900	2	2	3.4GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5905	2	2	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5920	2	2	3.5GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6400	2	4	4.0GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6500	2	4	4.1GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6600	2	4	4.2GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	1x DP 1.2	4096x2304@60Hz(DP)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x DP 1.2	4096x2304@60Hz(DP)	DirectX 12
AMD Radeon™ 625	Discrete	2GB GDDR5	1x DP 1.2	4096x2304@60Hz(DP)	DirectX 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 2 independent displays via native display and 1 external monitor; supports external monitor via DisplayPort™

Chipset

Chipset
Intel Q470 chipset

Memory

Max Memory^[1]
Up to 64GB DDR4-2933

Memory Slots
Two DDR4 DIMM slots, dual-channel capable

- Memory Type**^{**}
- DDR4-2666
 - DDR4-2933

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]
Up to three drives, 2x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 2TB each
- M.2 SSD up to 1TB
- Optional Intel Optane™ Memory, M.2

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	-
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

RAID^[2]
RAID 0/1 support for HDDs

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

2. RAID is not preset by default, user can config RAID 0/1 according to the demand.

Removable Storage

- Optical**^{**}
- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
 - DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
 - None

- Card Reader**
- 3-in-1 card reader
 - No card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC233 codec

Speakers
Stereo speakers, 3W x2

Microphone

Dual array microphone

Camera**

- FHD 1080p, with ThinkShutter (physical switch on/off)
- IR & FHD 1080p, with ThinkShutter (physical switch on/off), Windows Hello support
- No camera

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
150W	Adapter	89%	Autosensing
170W	Adapter	89%	Autosensing

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
23.8"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	1000:1	-	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, support low blue light mode
23.8"	FHD (1920x1080)	None	IPS	350 nits	Anti-glare	16:9	1000:1	-	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, support low blue light mode, PrivacyGuard
23.8"	FHD (1920x1080)	Multi-touch	IPS	250 nits	Anti-glare	16:9	1000:1	-	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, support low blue light mode

Touchscreen

- Advanced In-cell Touch (AIT), supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- PrivacyGaurd is only available for MT 11JX

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Buttons

- Power button
- PrivacyGuard on/off button (PrivacyGuard model only)
- Microphone mute button

Form Factor

AIO (23.8 inches)

Dimensions (WxDxH)

Models	Dimensions
Models (with full function monitor stand, with ODD, with PrivacyGuard, with camera)	541 x 200 x 414.2-494.2 mm (21.3 x 7.9 x 16.3-19.5 inches)
Models (with full function monitor stand, with ODD, without PrivacyGuard, with camera)	541 x 200 x 414.2-494.2 mm (21.3 x 7.9 x 16.3-19.5 inches)
Models (with full function monitor stand, without ODD, with PrivacyGuard, with camera)	541 x 200 x 414.2-494.2 mm (21.3 x 7.9 x 16.3-19.5 inches)
Models (with full function monitor stand, without ODD, without PrivacyGuard, with camera)	541 x 200 x 414.2-494.2 mm (21.3 x 7.9 x 16.3-19.5 inches)
Models (with UltraFlex IV stand, with ODD, without PrivacyGuard, with camera)	Lowest in flat mode: 541 x 312.8 x 227.4 mm (21.3 x 12.3 x 9.0 inches) Highest in vertical mode: 541 x 232.7 x 467.7 mm (21.3 x 9.2 x 18.4 inches)
Models (with UltraFlex IV stand, without ODD, without PrivacyGuard, with camera)	Lowest in flat mode: 541 x 312.8 x 227.4 mm (21.3 x 12.3 x 9.0 inches) Highest in vertical mode: 541 x 232.7 x 467.7 mm (21.3 x 9.2 x 18.4 inches)
Models (without stand, with ODD, with PrivacyGuard, with camera)	541 x 61.3 x 340.5 mm (21.3 x 2.4 x 13.4 inches)
Models (without stand, with ODD, without PrivacyGuard, with camera)	541 x 57.8 x 340.5 mm (21.3 x 2.3 x 13.4 inches)
Models (without stand, without ODD, with PrivacyGuard, with camera)	541 x 49.5 x 340.5 mm (21.3 x 1.9 x 13.4 inches)
Models (without stand, without ODD, without PrivacyGuard, with camera)	541 x 46 x 340.5 mm (21.3 x 1.8 x 13.4 inches)

Weight

Models	Weight
Models (with full function monitor stand, with ODD, with PrivacyGuard, with camera)	Around 8.71 kg (19.2 lbs)
Models (with full function monitor stand, with ODD, without PrivacyGuard, with camera)	Around 7.84 kg (17.3 lbs)
Models (with full function monitor stand, without ODD, with PrivacyGuard, with camera)	Around 8.39 kg (18.5 lbs)
Models (with full function monitor stand, without ODD, without PrivacyGuard, with camera)	Around 7.51 kg (16.6 lbs)
Models (with UltraFlex IV stand, with ODD, without PrivacyGuard, with camera)	Around 8.58 kg (18.9 lbs)
Models (with UltraFlex IV stand, without ODD, without PrivacyGuard, with camera)	Around 8.26 kg (18.2 lbs)
Models (without stand, with ODD, with PrivacyGuard, with camera)	Around 6.45 kg (14.2 lbs)
Models (without stand, with ODD, without PrivacyGuard, with camera)	Around 5.57 kg (12.3 lbs)
Models (without stand, without ODD, with PrivacyGuard, with camera)	Around 6.13 kg (13.5 lbs)
Models (without stand, without ODD, without PrivacyGuard, with camera)	Around 5.25 kg (11.6 lbs)

Case Color

Black

Bays

- 2x 2.5" disk bay (2nd 2.5" HDD occupies ODD bay)
- 1x slim ODD bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

Toolless cover and stand assembly / removal

Stand**

- Full function monitor stand, supports -5° to +30° tilt, up to 80mm lift
- UltraFlex IV stand, supports -5° to +70° tilt, up to 164mm lift (flat mode) / up to 115mm lift (vertical mode)
- No stand

Mounting

Supports VESA mount 100mm

CONNECTIVITY

Network^[1]

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®^[2]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. This system does not support Power Over Ethernet (PoE). If the system is used in a PoE environment, then a Network Isolator is required to prevent possible damage to the system, PoE equipment, or both.
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Rear Ports^{[1][2]}

- 4x USB 3.2 Gen 1 (one supports Smart Power On)
- 1x DisplayPort
- 1x Ethernet (RJ-45)

Optional Rear Ports

1x serial

Right Ports

- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 1 (5V/3A charging)
- 1x headphone / microphone combo jack (3.5mm)

Optional Right Ports

1x card reader

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI® 1.4 dongle
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

Other Security

(Optional) ThinkShutter camera cover

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^{[1][2]}

- Intel vPro with Intel AMT 14.0
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

Humidity

Operating: 20% to 80%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS**Green Certifications****Green Certifications^[1]**

- (Optional) EPEAT™ Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- TCO edge
- RoHS compliant

Notes:

1. Energy Star 8.0 and EPEAT are only available for MT 11CD/11CE, TCO 8.0 and TCO Edge are not for the models with PrivacyGuard.

Other Certifications**Other Certifications**

- (Optional) TÜV Rheinland® Eye Comfort Certification
- TÜV Rheinland Low Blue Light
- (Optional) TÜV Rheinland Ultra Low Noise

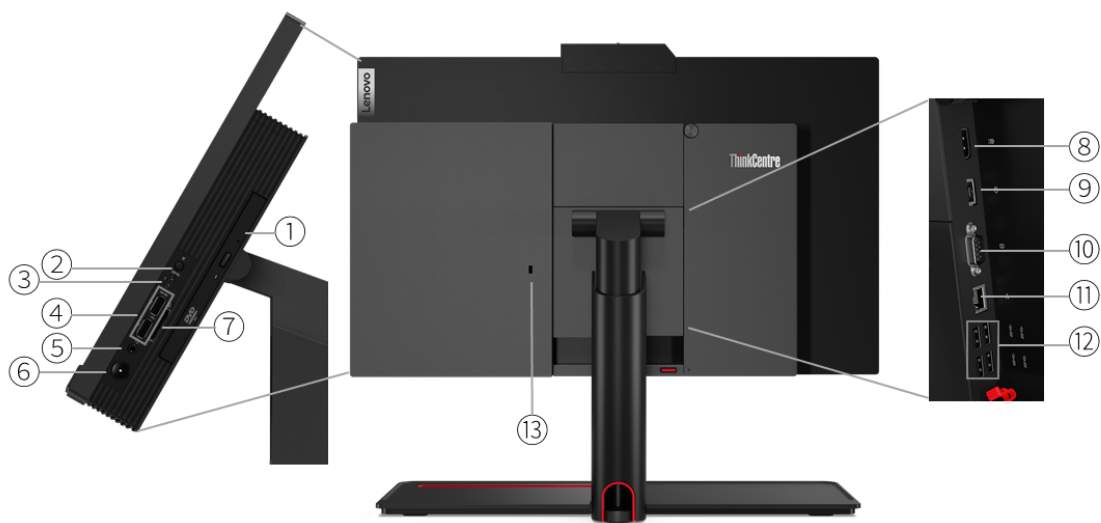
Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Optical drive *	8. DisplayPort (DP in/out combo port)
2. Microphone mute button	9. Power connector
3. USB-C 3.2 Gen 2	10. Serial or HDMI *
4. 2x USB 3.2 Gen 2	11. Ethernet (RJ-45)
5. Headphone / microphone combo jack (3.5mm)	12. 4x USB 3.2 Gen 1
6. Power button	13. Kensington Security Slot
7. Card reader *	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, 10th Generation Intel Core™ i3, or 11th Generation Intel Core i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5905	2	2	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6405	2	4	4.1GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6505	2	4	4.2GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6605	2	4	4.3GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10105	4	8	3.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10305	4	8	3.8GHz	4.5GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10325	4	8	3.9GHz	4.7GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-11400	6	12	2.6GHz	4.4GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-11500	6	12	2.7GHz	4.6GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11600	6	12	2.8GHz	4.8GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i7-11700	8	16	2.5GHz	4.9GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-11900	8	16	2.5GHz	5.2GHz	16MB	DDR4-3200	Intel UHD Graphics 750

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 610	Integrated	Shared	1x DP 1.4b, 1x optional HDMI® 2.1	4096x2304@60Hz(DP), 4096x2160@60Hz(HDMI)	DirectX® 12	-
Intel UHD graphics 630	Integrated	Shared	1x DP 1.4b, 1x optional HDMI 2.1	4096x2304@60Hz(DP), 4096x2160@60Hz(HDMI)	DirectX 12	-
Intel UHD graphics 730	Integrated	Shared	1x DP 1.4b, 1x optional HDMI 2.1	4096x2304@60Hz(DP), 4096x2160@60Hz(HDMI)	DirectX 12	-
Intel UHD graphics 750	Integrated	Shared	1x DP 1.4b, 1x optional HDMI 2.1	4096x2304@60Hz(DP), 4096x2160@60Hz(HDMI)	DirectX 12	-
AMD Radeon™ 630	Discrete	2GB GDDR5	1x DP 1.4b, 1x optional HDMI 2.1	4096x2304@60Hz(DP), 4096x2160@60Hz(HDMI)	DirectX 12	-

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 displays via native display and 2 external monitor; supports external monitors via DisplayPort™ and optional HDMI; work as standalone monitor via DisplayPort (DP in / out combo)

Chipset

Chipset

Intel Q570 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type^{**[2]}

- DDR4-2666
- DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. Installed memory is actually 3200MHz, but may run at 2666MHz or 3200MHz depending on the memory support capability of processor

Storage

Storage Support^{[1][2]}

Up to three drives, 2x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 2TB each
- M.2 SSD up to 1TB

Storage Type^{***}

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	-	-
2.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-	Opal
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	-	-	Opal

RAID^[3]

RAID 0/1 support for HDDs

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. 2nd 2.5" HDD occupies ODD bay, and needs ODD to HDD bracket kit (optional, come with 2nd 2.5" HDD)
3. RAID is not preset by default, user can config RAID 0/1 according to the demand.

Removable Storage

Optical^{**}

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233 codec

Speakers

Stereo speakers, 3W x2, Dolby® Atmos®

Microphone

- Dual array microphone
- No microphone

Camera**

- 5.0-megapixel, with ThinkShutter (physical switch on/off)
- 5.0-megapixel, IR & RGB hybrid, with ThinkShutter (physical switch on/off), Windows Hello support
- No camera

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
150W	Adapter	89%	Autosensing
170W	Adapter	89%	Autosensing

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
23.8"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	1000:1	72% NTSC	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, low blue light
23.8"	FHD (1920x1080)	None	IPS	350 nits	Anti-glare	16:9	1000:1	72% NTSC	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, low blue light, PrivacyGuard
23.8"	FHD (1920x1080)	Multi-touch	IPS	250 nits	Anti-glare	16:9	1000:1	72% NTSC	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, low blue light

Touchscreen

- Advanced In-cell Touch (AIT), supports 10-point touch
- Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black

- No mouse

Mechanical

Buttons

- Power button
- PrivacyGuard on/off button (PrivacyGuard model only)
- Microphone mute button

Form Factor

AIO (23.8 inches)

Dimensions (WxDxH)

Models	Dimensions
Models (with full function monitor stand, with ODD, with PrivacyGuard, with camera)	541 x 200 x 414.2-494.2 mm (21.3 x 7.9 x 16.3-19.5 inches)
Models (with full function monitor stand, with ODD, without PrivacyGuard, with camera)	541 x 200 x 414.2-494.2 mm (21.3 x 7.9 x 16.3-19.5 inches)
Models (with full function monitor stand, without ODD, with PrivacyGuard, with camera)	541 x 200 x 414.2-494.2 mm (21.3 x 7.9 x 16.3-19.5 inches)
Models (with full function monitor stand, without ODD, without PrivacyGuard, with camera)	541 x 200 x 414.2-494.2 mm (21.3 x 7.9 x 16.3-19.5 inches)
Models (with UltraFlex IV stand, with ODD, without PrivacyGuard, with camera)	Lowest in flat mode: 541 x 312.8 x 227.4 mm (21.3 x 12.3 x 9.0 inches) Highest in vertical mode: 541 x 232.7 x 467.7 mm (21.3 x 9.2 x 18.4 inches)
Models (with UltraFlex IV stand, without ODD, without PrivacyGuard, with camera)	Lowest in flat mode: 541 x 312.8 x 227.4 mm (21.3 x 12.3 x 9.0 inches) Highest in vertical mode: 541 x 232.7 x 467.7 mm (21.3 x 9.2 x 18.4 inches)
Models (without stand, with ODD, with PrivacyGuard, with camera)	541 x 61.3 x 340.5 mm (21.3 x 2.4 x 13.4 inches)
Models (without stand, with ODD, without PrivacyGuard, with camera)	541 x 57.8 x 340.5 mm (21.3 x 2.3 x 13.4 inches)
Models (without stand, without ODD, with PrivacyGuard, with camera)	541 x 49.5 x 340.5 mm (21.3 x 1.9 x 13.4 inches)
Models (without stand, without ODD, without PrivacyGuard, with camera)	541 x 46 x 340.5 mm (21.3 x 1.8 x 13.4 inches)

Weight

Models	Weight
Models (with full function monitor stand, with ODD, with PrivacyGuard, with camera)	Around 8.71 kg (19.2 lbs)
Models (with full function monitor stand, with ODD, without PrivacyGuard, with camera)	Around 7.84 kg (17.3 lbs)
Models (with full function monitor stand, without ODD, with PrivacyGuard, with camera)	Around 8.39 kg (18.5 lbs)
Models (with full function monitor stand, without ODD, without PrivacyGuard, with camera)	Around 7.51 kg (16.6 lbs)
Models (with UltraFlex IV stand, with ODD, without PrivacyGuard, with camera)	Around 8.58 kg (18.9 lbs)
Models (with UltraFlex IV stand, without ODD, without PrivacyGuard, with camera)	Around 8.26 kg (18.2 lbs)
Models (without stand, with ODD, with PrivacyGuard, with camera)	Around 6.45 kg (14.2 lbs)
Models (without stand, with ODD, without PrivacyGuard, with camera)	Around 5.57 kg (12.3 lbs)
Models (without stand, without ODD, with PrivacyGuard, with camera)	Around 6.13 kg (13.5 lbs)
Models (without stand, without ODD, without PrivacyGuard, with camera)	Around 5.25 kg (11.6 lbs)

Case Color

Black

Bays^[1]

- 2x 2.5" disk bay (2nd 2.5" HDD occupies ODD bay)

- 1x slim ODD bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

Toolless cover and stand assembly / removal

Stand**

- Full function monitor stand, supports -5° to +30° tilt, up to 80mm lift
- UltraFlex IV stand, supports -5° to +70° tilt, up to 164mm lift (flat mode) / up to 115mm lift (vertical mode)
- No stand

Mounting

Supports VESA mount 100mm

Others

Supports Smart Power On

Notes:

1. 2nd 2.5" HDD needs ODD to HDD bracket kit (optional, come with 2nd 2.5" HDD)

CONNECTIVITY

Network^[1]**Onboard Ethernet**

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®^[2]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro technology support, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, Intel vPro technology support, M.2 Card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. This system does not support Power Over Ethernet (PoE). If the system is used in a PoE environment, then a Network Isolator is required to prevent possible damage to the system, PoE equipment, or both.
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Rear Ports^{[1][2]}**

- 4x USB 3.2 Gen 1
- 1x DisplayPort
- 1x Ethernet (RJ-45)

Optional Rear Ports**

- 1x HDMI
- 1x serial

Right Ports

- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 2 (support data transfer and 5V@3A charging)
- 1x headphone / microphone combo jack (3.5mm)

Optional Right Ports

1x card reader

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

Other Security

(Optional) ThinkShutter camera cover

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year limited onsite service
- 3-year limited onsite service

- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

Humidity

Operating: 20% to 80%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- TCO edge
- RoHS compliant

Other Certifications

Other Certifications

- (Optional) TÜV Rheinland® Eye Comfort Certification
- TÜV Rheinland Low Blue Light
- (Optional) TÜV Rheinland Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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intel



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intel

OVERVIEW



1. 3x USB 3.2 Gen 1	7. Microphone mute button
2. USB-C 3.2 Gen 2 (support data transfer and 15W charging)	8. PC / monitor mode switch
3. Ethernet (RJ-45)	9. 3x USB 3.2 Gen 2
4. HDMI (HDMI in 1.4 / HDMI out 2.1 TMDS combo port)	10. Headphone / microphone combo jack (3.5mm)
5. DisplayPort 1.4	11. Card reader *
6. Power connector	12. Power button

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G6900	2	2	3.4GHz	-	4MB	DDR4-3200	Intel UHD Graphics 710
Pentium Gold G7400	2	4	3.7GHz	-	6MB	DDR4-3200	Intel UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR4-3200	Intel UHD Graphics 730
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR4-3200	Intel UHD Graphics 770
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	DDR4-3200	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	DDR4-3200	Intel UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR4-3200	Intel UHD Graphics 770

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- No operating system

Graphics

Graphics***[]

Graphics	Type	Memory	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 710	Integrated	Shared	1x HDMI® 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 5120x2160@60Hz(DP)	DirectX® 12	-
Intel UHD graphics 730	Integrated	Shared	1x HDMI 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 5120x2160@60Hz(DP)	DirectX 12	-
Intel UHD graphics 770	Integrated	Shared	1x HDMI 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 5120x2160@60Hz(DP)	DirectX 12	-
NVIDIA® GeForce MX550	Discrete	2GB GDDR6	1x HDMI 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 5120x2160@60Hz(DP)	DirectX 12	-

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitor; supports external monitors via DisplayPort™ and HDMI; work as standalone monitor via HDMI (HDMI in / out combo)

Chipset

Chipset
Intel Q670 chipset

Memory

Max Memory^[1]
Up to 64GB DDR4-3200

Memory Slots
Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type
DDR4-3200

Notes:
1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}
Up to three drives, 2x 2.5" HDD + 1x M.2 SSD
• 2.5" HDD up to 2TB each
• M.2 SSD up to 1TB

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	-
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2280 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	Opal2

RAID^[3]
RAID 0/1 support for HDDs

Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. 2nd 2.5" HDD occupies ODD bay, and needs ODD to HDD bracket kit (optional, come with 2nd 2.5" HDD)
3. RAID is not preset by default, user can config RAID 0/1 according to the demand.

Removable Storage

Optical^{**}
• DVD-ROM, SATA connector, slim (9.0mm)
• DVD burner (DVD±RW), SATA connector, slim (9.0mm)
• None

Card Reader
• 3-in-1 card reader (SD, SDHC, SDXC)
• No card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC256-NL codec

Speakers
Stereo speakers, 3W x2, Dolby® Atmos®

Microphone

- Dual array microphone
- No microphone

Camera**

- 5.0-megapixel, with ThinkShutter (physical switch on/off), ±20° view angle adjustable
- 5.0-megapixel, IR & RGB hybrid, with ThinkShutter (physical switch on/off), ±20° view angle adjustable, Windows Hello support
- No camera

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
180W	Fixed	90%	100V - 240V, 50-60Hz
230W	Fixed	92%	100V - 240V, 50-60Hz

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
23.8"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	1000:1	72% NTSC	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, low blue light, flicker free
23.8"	FHD (1920x1080)	Multi-touch	IPS	250 nits	Anti-glare	16:9	1000:1	72% NTSC	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, low blue light, flicker free

Touchscreen

- Advanced In-cell Touch (AIT), supports 10-point touch
- Non-touch

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Buttons

- Power button
- Microphone mute button
- Monitor / PC mode switch button

Form Factor

AIO (23.8 inches)

Dimensions (WxDxH)

Models	Dimensions
Models (with full function monitor stand, with camera)	Lowest in vertical mode: 539.6 x 217.31 x 394.65 mm (21.24 x 8.56 x 15.54 inches) Highest in vertical mode: 539.6 x 217.31 x 503.66 mm (21.24 x 8.56 x 19.83 inches)
Models (with full function monitor stand, without camera)	Lowest in vertical mode: 539.6 x 217.31 x 374.15 mm (21.24 x 8.56 x 14.73 inches) Highest in vertical mode: 539.6 x 217.31 x 483.16 mm (21.24 x 8.56 x 19.02 inches)
Models (with UltraFlex V stand, with camera)	Lowest in vertical mode: 539.6 x 216.32 x 387.63 mm (21.24 x 8.52 x 15.26 inches) Highest in vertical mode: 539.6 x 216.32 x 472 mm (21.24 x 8.52 x 18.58 inches)
Models (with UltraFlex V stand, without camera)	Lowest in vertical mode: 539.6 x 216.32 x 367.13 mm (21.24 x 8.52 x 14.45 inches) Highest in vertical mode: 539.6 x 216.32 x 451.5 mm (21.24 x 8.52 x 17.78 inches)

Packaging Dimensions (WxDxH)

- With Full Function Monitor Stand: 660 x 238 x 575 mm (25.98 x 9.37 x 22.64 inches)
- With UltraFlex V Stand: 660 x 238 x 545 mm (25.98 x 9.37 x 21.46 inches)

Weight^[1]

Models	Weight
Models (with full function monitor stand, with ODD, with camera)	Around 8.235 kg (18.15 lbs)
Models (with UltraFlex V stand, with ODD, with camera)	Around 8.742 kg (19.27 lbs)

Packaging Weight

- With Full Function Monitor Stand: 2.084 kg (4.59 lbs), packaging only
- With UltraDlex V Stand: 2.0658 kg (4.55 lbs), packaging only

Case Color

Black

Bays^[2]

- 2x 2.5" disk bay (2nd 2.5" HDD occupies ODD bay)
- 1x slim ODD bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

Toolless cover, stand, motherboard shielding, HDD, and memory assembly / removal

Stand**

- UltraFlex V stand, supports -5° to +70° tilt, up to 70°±2° lift (up to 174.02mm lift in flat mode / up to 84.37mm lift in vertical mode)
- Full function monitor stand, supports -5° to +20° tilt, left & right 45° swivel, 90° pivot, up to 110mm lift
- No stand

Mounting

Supports VESA mount 100mm

Others

- (Optional) Conference Call Base, 3W x4 Harman speakers, 4 digital microphones array with AI noise suppression, Physical button for Teams, USB-C® connector
- (Optional) Smart Human Presence Detection based on Radar Sensor
- Supports Smart Power On

Notes:

1. Weight may vary by configuration.
2. 2nd 2.5" HDD needs ODD to HDD bracket kit (optional, come with 2nd 2.5" HDD)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®**^[1]

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Rear Ports^{[1][2]}

- 3x USB 3.2 Gen 1
- 1x USB-C 3.2 Gen 2 (support data transfer and 15W charging)
- 1x HDMI (HDMI in 1.4 / HDMI out 2.1 TMDS combo port)
- 1x DisplayPort 1.4
- 1x Ethernet (RJ-45)

Optional Rear Ports

1x serial

Right Ports

- 3x USB 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Optional Right Ports

1x card reader

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable**

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI dongle
- DP to VGA dongle
- HDMI to DVI dongle
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

Other Security

(Optional) ThinkShutter camera cover

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^{[1][2]}

- Intel vPro Enterprise
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

Humidity

Operating: 20% to 80%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- TCO edge
- RoHS compliant

Other Certifications

Other Certifications

- TÜV Rheinland® Flicker Free
- TÜV Rheinland Low Blue Light
- (Optional) TÜV Rheinland Ultra Low Noise
- UL Anti-dust

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation, Contamination by Fluids, Salt Fog)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. 3x USB 3.2 Gen 1	7. Microphone mute button
2. USB-C 3.2 Gen 2 (data transfer, 15W charging)	8. PC / monitor mode switch
3. Ethernet (RJ-45)	9. 3x USB 3.2 Gen 2
4. HDMI in/out combo port	10. Headphone / microphone combo jack (3.5mm)
5. DisplayPort 1.4	11. Card reader *
6. Power connector	12. Power button

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G6900	2	2	3.4GHz	-	4MB	DDR5-4800	Intel UHD Graphics 710
Pentium Gold G7400	2	4	3.7GHz	-	6MB	DDR5-4800	Intel UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR5-4800	Intel UHD Graphics 770

Operating System

Operating System

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- No operating system

Graphics

Graphics^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 710	Integrated	Shared	1x HDMI® 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 5120x2160@60Hz(DP)	DirectX® 12
Intel UHD graphics 730	Integrated	Shared	1x HDMI 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 5120x2160@60Hz(DP)	DirectX 12
Intel UHD graphics 770	Integrated	Shared	1x HDMI 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 5120x2160@60Hz(DP)	DirectX 12
NVIDIA® GeForce MX550	Discrete	2GB GDDR6	1x HDMI 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 5120x2160@60Hz(DP)	DirectX 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitor; supports external monitors via

DisplayPort™ and HDMI; work as standalone monitor via HDMI (HDMI in / out combo)

Chipset

Chipset
Intel Q670 chipset

Memory

Max Memory^[1]
Up to 64GB DDR5-4800
Memory Slots
Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type
DDR5-4800

Notes:
1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}
Up to three drives, 2x 2.5" HDD + 1x M.2 SSD
• 2.5" HDD up to 2TB each
• M.2 SSD up to 1TB

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	-
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2280 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	Opal2

RAID^[3]

RAID 0/1 support for HDDs

Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. 2nd 2.5" HDD occupies ODD bay, and needs ODD to HDD bracket kit (optional, come with 2nd 2.5" HDD)
3. RAID is not preset by default, user can config RAID 0/1 according to the demand.

Removable Storage

Optical
• DVD-ROM, SATA connector, slim (9.0mm)
• DVD burner (DVD±RW), SATA connector, slim (9.0mm)
• None

Card Reader
• 3-in-1 card reader (SD, SDHC, SDXC)
• No card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC256-NL codec
Speakers
Stereo speakers, 3W x2, Dolby® Atmos®
Microphone

- Dual array microphone
- No microphone

Camera

- 5.0-megapixel, with ThinkShutter (physical switch on/off), ±20° view angle adjustable
- 5.0-megapixel, IR & RGB hybrid, with ThinkShutter (physical switch on/off), ±20° view angle adjustable, Windows Hello support
- No camera

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
180W	Fixed	90%	100V - 240V, 50-60Hz
230W	Fixed	92%	100V - 240V, 50-60Hz

DESIGN

Display

Display^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
23.8"	QHD (2560x1440)	None	IPS	300 nits	Anti-glare	16:9	1000:1	99% sRGB	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, low blue light (Hardware Solution), flicker free, Eye Safe

Touchscreen

Non-touch

Notes:

1. California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Buttons

- Power button
- Microphone mute button
- Monitor / PC mode switch button

Form Factor

AIO (23.8 inches)

Dimensions (WxDxH)

Models	Dimensions
Models (with full function monitor stand, with camera)	Lowest in vertical mode: 539.6 x 217.31 x 394.65 mm (21.24 x 8.56 x 15.54 inches)

	Highest in vertical mode: 539.6 x 217.31 x 503.66 mm (21.24 x 8.56 x 19.83 inches)
Models (with full function monitor stand, without camera)	Lowest in vertical mode: 539.6 x 217.31 x 374.15 mm (21.24 x 8.56 x 14.73 inches) Highest in vertical mode: 539.6 x 217.31 x 483.16 mm (21.24 x 8.56 x 19.02 inches)
Models (with UltraFlex V stand, with camera)	Lowest in vertical mode: 539.6 x 216.32 x 387.63 mm (21.24 x 8.52 x 15.26 inches) Highest in vertical mode: 539.6 x 216.32 x 472 mm (21.24 x 8.52 x 18.58 inches)
Models (with UltraFlex V stand, without camera)	Lowest in vertical mode: 539.6 x 216.32 x 367.13 mm (21.24 x 8.52 x 14.45 inches) Highest in vertical mode: 539.6 x 216.32 x 451.5 mm (21.24 x 8.52 x 17.78 inches)

Packaging Dimensions (WxDxH)

- With Full Function Monitor Stand: 660 x 238 x 575 mm (25.98 x 9.37 x 22.64 inches)
- With UltraFlex V Stand: 660 x 238 x 545 mm (25.98 x 9.37 x 21.46 inches)

Weight^[1]

Models	Weight
Models (with full function monitor stand, with ODD, with camera)	Around 8.235 kg (18.15 lbs)
Models (with UltraFlex V stand, with ODD, with camera)	Around 8.742 kg (19.27 lbs)

Packaging Weight

- With Full Function Monitor Stand: 2.084 kg (4.59 lbs), packaging only
- With UltraDlex V Stand: 2.0658 kg (4.55 lbs), packaging only

Case Color

Black

Bays^[2]

- 2x 2.5" disk bay (2nd 2.5" HDD occupies ODD bay)
- 1x slim ODD bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

Toolless cover, stand, motherboard shielding, HDD, and memory assembly / removal

Stand

- UltraFlex V stand, supports -5° to +70° tilt, up to 70°±2° lift (up to 174.02mm lift in flat mode / up to 84.37mm lift in vertical mode)
- Full function monitor stand, supports -5° to +20° tilt, left & right 45° swivel, 90° pivot, up to 110mm lift
- No stand

Mounting

Supports VESA mount 100mm

Others

- (Optional) Conference Call Base, 3W x4 Harman speakers, 4 digital microphones array with AI noise suppression, Physical button for Teams, USB-C® connector
- (Optional) Smart Human Presence Detection based on Radar Sensor
- Supports Smart Power On

Notes:

1. Weight may vary by configuration.
2. 2nd 2.5" HDD needs ODD to HDD bracket kit (optional, come with 2nd 2.5" HDD)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth^[1]

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Rear Ports^{[1][2]}

- 3x USB 3.2 Gen 1
- 1x USB-C 3.2 Gen 2 (support data transfer and 15W charging)
- 1x HDMI (HDMI in 1.4 / HDMI out 2.1 TMDS combo port)
- 1x DisplayPort 1.4
- 1x Ethernet (RJ-45)

Optional Rear Ports

1x serial

Right Ports

- 3x USB 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Optional Right Ports

1x card reader

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI dongle
- DP to VGA dongle
- HDMI to DVI dongle
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

- Chassis intrusion switch

- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

Other Security

(Optional) ThinkShutter camera cover

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Enterprise
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

Humidity

Operating: 20% to 80%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold

- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- TCO edge
- VOC Report
- RoHS compliant

Other Certifications

Other Certifications

- TÜV Rheinland® Eyesafe®
- TÜV Rheinland Flicker Free
- TÜV Rheinland Low Blue Light (Hardware Solution)
- (Optional) TÜV Rheinland Ultra Low Noise
- UL Anti-dust

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation, Contamination by Fluids, Salt Fog)

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OVERVIEW



1. Power button	5. 2x USB 3.2 Gen 2
2. Combo audio jack (on bottom)	6. Ethernet (RJ-45)
3. Power connector	7. 2x USB 2.0
4. HDMI-out	8. Optical drive *

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, 12th Generation Intel Core™ i3 U-Series, or 12 th Generation Intel Core i3 / i5 Processor P-Series

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 7305	5 (1 P-core + 4 E-core)	6	P-core 1.1GHz / E-core 0.9GHz	-	8MB	DDR4-3200	Intel UHD Graphics
Pentium 8505	5 (1 P-core + 4 E-core)	6	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	8MB	DDR4-3200	Intel UHD Graphics
Core i3-1220P	10 (2 P-core + 8 E-core)	12	P-core 1.5GHz / E-core 1.1GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel UHD Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD Graphics	Integrated	Shared	1x HDMI® 1.4	1920x1080@60Hz	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	1x HDMI 1.4	1920x1080@60Hz	DirectX 12

Notes:

- The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 2 independent displays via native display and 1 external monitors; supports external monitors via HDMI

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory[1]

Up to 16GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

- Up to two drives, 1x 2.5" HDD + 1x M.2 SSD
- 2.5" HDD up to 1TB
 - M.2 SSD up to 512GB

Storage Type**

Disk Type	Interface	RPM
2.5" SATA HDD	SATA 6Gb/s	5.4K
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	-

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC256 codec

Speakers

Stereo speakers, 3W x2, Audio by HARMAN

Microphone**

- Single microphone
- Dual array microphone

Camera

- HD 720p 0° Pre-angle pull up camera, with privacy shutter, LED indicator
- No camera

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
90W	Adapter	89%	Autosensing

DESIGN

Display

Display^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
21.5"	FHD (1920x1080)	None	WVA	250 nits	Anti-glare	16:9	1000:1	72% NTSC	horizontal: +/- 89°, vertical: +/- 89°	14ms response Time, 16.7 million color depth, 60Hz refresh

										rate, borderless design
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Touchscreen

Non-touch

Notes:

1. California Electronic Waste Recycling Fee
- In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
- For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard, black

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- No mouse

Mechanical

Buttons

- Power button
- Optical drive eject button

Form Factor

AIO (21.5 inches)

Dimensions (WxDxH)

490.3 x 185 x 405.39 mm (19.3 x 7.3 x 15.96 inches)

Packaging Dimensions (WxDxH)

All models: 591 x 231 x 522 mm (23.27 x 9.09 x 20.55 inches)

Weight

Around 5.7 kg (12.6 lbs)

Packaging Weight

All models: 9.1 kg (20.01 lbs)

Case Color

Raven black

Bays

1x 2.5" disk bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

Support EOU design for HDD

Stand

Monitor stand, supports -5° to +25° tilt, left & right 45° swivel

Mounting

None

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111H, 1x RJ-45

WLAN + Bluetooth®**[1]

- Realtek RTL8822BE, 802.11ac Dual Band 1x1 Wi-Fi® + Bluetooth 5.2, M.2 card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Front Ports**

None

Rear Ports^[2]

- 2x USB 2.0
- 2x USB 3.2 Gen 2
- 1x HDMI-out
- 1x Ethernet (RJ-45)
- 1x power connector

Top Ports

None

Bottom Ports

1x headphone / microphone combo jack (3.5mm)

Left Ports

None

Optional Left Ports

None

Right Ports

None

Optional Right Ports

None

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable**

No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Firmware TPM 2.0 integrated in SoC

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Cover presence switch
- Intel BIOS guard

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3 and Lot 7
- RoHS / WEEE / REACH

Other Certifications

Other Certifications

- TÜV Rheinland® Flicker Free
- TÜV Rheinland Low Blue Light
- TÜV Rheinland Low Noise

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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OVERVIEW



1. Power button	5. 2x USB 3.2 Gen 2
2. Combo audio jack (on bottom)	6. Ethernet (RJ-45)
3. Power connector	7. 2x USB 2.0
4. HDMI-out	8. Optical drive *

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, 12th Generation Intel Core™ i3 U-Series, or 12 th Generation Intel Core i3 / i5 Processor P-Series

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 7305	5 (1 P-core + 4 E-core)	6	P-core 1.1GHz / E-core 0.9GHz	-	8MB	DDR4-3200	Intel UHD Graphics
Pentium 8505	5 (1 P-core + 4 E-core)	6	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	8MB	DDR4-3200	Intel UHD Graphics
Core i3-1220P	10 (2 P-core + 8 E-core)	12	P-core 1.5GHz / E-core 1.1GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel UHD Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics
Core i7-1260P	12 (4 P-core + 8 E-core)	16	P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- No operating system

Graphics

Graphics**[]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD Graphics	Integrated	Shared	1x HDMI® 1.4	1920x1080@60Hz	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	1x HDMI 1.4	1920x1080@60Hz	DirectX 12

Notes:

- The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 2 independent displays via native display and 1 external monitors; supports external monitors via HDMI

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory[]

Up to 16GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 SSD up to 1TB

Storage Type^{***}

Disk Type	Interface	RPM
2.5" SATA HDD	SATA 6Gb/s	5.4K
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	-

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC256 codec

Speakers

Stereo speakers, 3W x2, Audio by HARMAN

Microphone

Dual array microphone

Camera^{**}

- 5.0-megapixel IR camera, 0° Pre-angle pull up camera, with privacy shutter, LED indicator
- HD 720p 0° Pre-angle pull up camera, with privacy shutter, LED indicator
- No camera

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
90W	Adapter	89%	Autosensing

DESIGN

Display

Display^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
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23.8"	FHD (1920x1080)	None	WVA	250 nits	Anti-glare	16:9	1000:1	72% NTSC	horizontal: +/- 89°, vertical: +/- 89°	14ms response Time, 16.7 million color depth, 60Hz refresh rate, borderless design
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Touchscreen

Non-touch

Notes:

1. California Electronic Waste Recycling Fee
- In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.
- For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard, black

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black

Mechanical

Buttons

- Power button
- Optical drive eject button

Form Factor

AIO (23.8 inches)

Dimensions (WxDxH)

Models	Dimensions
Models with full function monitor stand	541 x 220 x 380.44-480.44 mm (21.3 x 8.66 x 14.98-18.91 inches)
Models with monitor stand	541 x 185 x 433.6 mm (21.3 x 7.3 x 17.1 inches)

Packaging Dimensions (WxDxH)

All models: 695 x 196 x 569 mm (27.36 x 7.72 x 22.40 inches)

Weight

Models	Weight
Models with full function monitor stand	Around 6.6 kg (14.6 lbs)
Models with monitor stand	Around 6.7 kg (14.8 lbs)

Packaging Weight

All models: 10.74 kg (23.08 lbs)

Case Color

Raven black

Bays

1x 2.5" disk bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

Support EOU design for HDD

Stand**

- Monitor stand, supports -5° to +25° tilt, left & right 45° swivel
- Full function monitor stand, supports -5° to +16° tilt, left & right 45° swivel, up to 100mm lift

Mounting

None

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111H, 1x RJ-45

WLAN + Bluetooth®**^[1]

- Realtek RTL8822BE, 802.11ac Dual Band 1x1 Wi-Fi® + Bluetooth 5.2, M.2 card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

None

Rear Ports^[2]

- 2x USB 2.0
- 2x USB 3.2 Gen 2
- 1x HDMI-out
- 1x Ethernet (RJ-45)
- 1x power connector

Top Ports

None

Bottom Ports

1x headphone / microphone combo jack (3.5mm)

Left Ports

None

Optional Left Ports

None

Right Ports

None

Optional Right Ports

None

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable

No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Firmware TPM 2.0 integrated in SoC

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Cover presence switch
- Intel BIOS guard

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3 and Lot 7
- RoHS / WEEE / REACH

Other Certifications

Other Certifications

- TÜV Rheinland® Flicker Free
- TÜV Rheinland Low Blue Light
- TÜV Rheinland Low Noise

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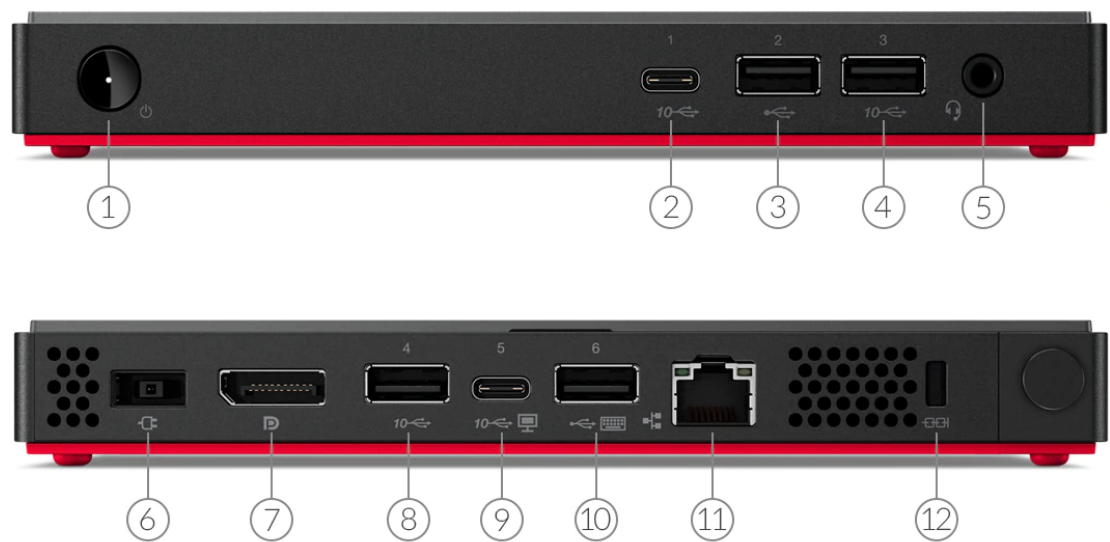


intel



intel

OVERVIEW



1. Power button	7. DisplayPort
2. USB-C 3.2 Gen 2	8. USB 3.2 Gen 2
3. USB 2.0	9. USB-C 3.2 Gen 2 (display and power-in)
4. USB 3.2 Gen 2	10. USB 2.0
5. Headphone / microphone combo jack (3.5mm)	11. Ethernet (RJ-45)
6. Power connector	

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 3300U	4	4	2.1GHz	3.5GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon™ Vega 6 Graphics
AMD Ryzen 5 PRO 3500U	4	8	2.1GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon Vega 8 Graphics

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
AMD Radeon Vega 6 Graphics	Integrated	Shared	1x DisplayPort™, 1x USB-C®	3840x2160@60Hz(DP), 3840x2160@60Hz(USB-C)	DirectX® 12
AMD Radeon Vega 8 Graphics	Integrated	Shared	1x DisplayPort, 1x USB-C	3840x2160@60Hz(DP), 3840x2160@60Hz(USB-C)	DirectX 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 2 independent displays via onboard ports (DisplayPort and USB-C)

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

8GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

DDR4-2400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 2x M.2 SSD

- M.2 SSD up to 1TB each

Storage Type***

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233 codec

Speakers

Single speaker, 1W x1

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
65W	Adapter	89%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

Nano (0.35L)

Dimensions (WxDxH)

179 x 88 x 22 mm (7.05 x 3.46 x 0.87 inches)

Packaging Dimensions (WxDxH)

490 x 125 x 255 mm (19.29 x 4.92 x 10.04 inches)

Weight

Around 0.505 kg (1.11 lbs)

Packaging Weight

0.83 kg (1.83 lbs)

Case Color

Iron grey (top cover), black (mid bezel), red (bottom cover)

Bays

No bays

Expansion Slots

- One M.2 slot (for WLAN)
- Two M.2 slots (for SSD, one supports up to PCIe 3.0 x4, one supports up to PCIe 3.0 x2)

Stand

No stand

IO Box

No IO box

Mounting**

- VESA mount bracket kit with adapter holder, supports VESA mount 75mm and 100mm
- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- DIN rail mount bracket kit
- None

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111FP-CG, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®^[1]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Qualcomm® QCA6174A, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Rear Ports^[2]

- 1x USB 2.0
- 1x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2 (support display function and power-in [20V and >45W])
- 1x DisplayPort
- 1x Ethernet (RJ-45)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- USB-C to DP dongle
- USB-C to HDMI® dongle
- USB-C to VGA dongle
- DP to HDMI 1.4 dongle
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

DASH 1.1 / 1.2

SERVICE

Warranty

Base Warranty**[]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant
- REACH
- WEEE

Other Certifications

Other Certifications

TÜV Rheinland® Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

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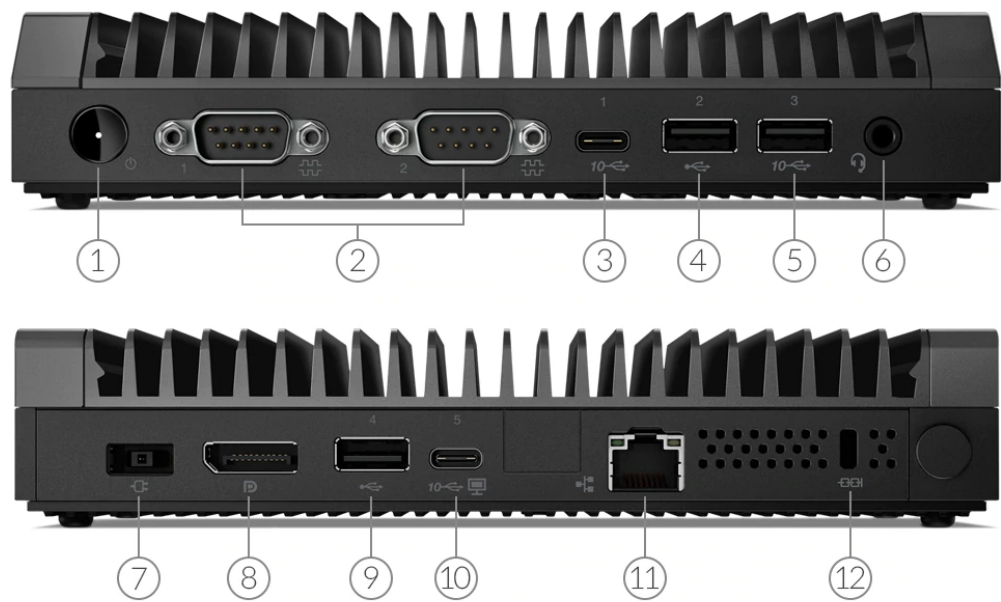


AMD



AMD

OVERVIEW



1. Power button	7. Power connector
2. 2x Serial (RS232)	8. DisplayPort
3. USB-C 3.2 Gen 2	9. USB 3.2 Gen 2
4. USB 2.0	10. USB-C 3.2 Gen 2 (display and power-in)
5. USB 3.2 Gen 2	11. Ethernet (RJ-45)
6. Headphone / microphone combo jack (3.5mm)	12. Kensington Security Slot

PERFORMANCE

Processor

Processor Family

AMD Athlon™ Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Athlon Silver 3050e	2	4	1.4GHz	2.8GHz	1MB L2 / 4MB L3	DDR4-2400	AMD Radeon™ Graphics

Operating System

Operating System**^[1]

- Windows® 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Windows 10 IoT Enterprise (Thin Client)
- LeTOS V2 (Lenovo® Terminal Operating System, Linux-based)
- Ubuntu Linux
- No operating system

Notes:

1. Windows 10 IoT Enterprise (Thin Client) and LeTOS V2 are for Thin Client models

Graphics

Graphics^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
AMD Radeon Graphics	Integrated	Shared	1x DisplayPort™, 1x USB-C®	3840x2160@60Hz(DP), 3840x2160@60Hz(USB-C)	DirectX® 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 2 independent displays via onboard ports (DisplayPort and USB-C)

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

4GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots

Memory Type

DDR4-2400

Notes:

1. The max memory is based on the test results with current Lenovo memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 1TB M.2 2280 SSD

Storage Type***

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233 codec

Speakers

Single speaker, 1W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
65W	Adapter	88%	Autosensing, wide temperature
65W	Adapter	89%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

Nano (0.55L)

Dimensions (WxDxH)

Models	Dimensions
Nano only	179 x 88 x 34.5 mm (7.05 x 3.46 x 1.36 inches)
Nano with IO box	179 x 88 x 61.3 mm (7.05 x 3.46 x 2.41 inches)

Packaging Dimensions (WxDxH)

490 x 125 x 255 mm (19.29 x 4.92 x 10.04 inches)

Weight

Models	Weight
Nano only	Around 0.72 kg (1.58 lbs)
Nano with IO box	Around 1.2 kg (2.65 lbs)

Packaging Weight

0.83 kg (1.83 lbs)

Case Color

Iron grey (top cover), black (mid bezel), black (bottom cover)

Bays

No bays

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

Stand

No stand

IO Box

- IO box: 2x serial (RS232 / RS422 / RS485, SDK selectable) and 2x Ethernet (RJ-45, Realtek RTL8153B, gigabit Ethernet) on front, 1x DIO (4DI / 4DO), 1x USB-C (connect to Nano) and 1x DC-in connector (9V - 36V) on rear
- No IO box

Mounting**

- VESA mount bracket kit with adapter holder, supports VESA mount 75mm and 100mm
- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- DIN rail mount bracket kit
- None

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111FP-CG, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®**[1]

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Qualcomm® QCA6174A, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

- 2x serial (RS-232)

Optional Front Ports

- 2x gigabit Ethernet (RJ-45) on SE30 IO box
- 2x serial (RS232 / RS422 / RS485, SDK selectable) on SE30 IO box

Rear Ports^[2]

- 1x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2 (support display function and power-in [20V and >45W])
- 1x DisplayPort
- 1x Ethernet (RJ-45)

Optional Rear Ports

- 1x DC-in 3pin Phoenix connector on SE30 IO box
- 1x DIO (4DI / 4DO) on SE30 IO box

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable**^{***}

- USB-C to DP dongle
- USB-C to HDMI® dongle
- USB-C to VGA dongle
- DP to HDMI 1.4 dongle
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY**System Management****System Management**

DASH 1.1 / 1.2

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Storage: -40°C (-40°F) to 60°C (140°F)
- Operating:
 - From 10°C (50°F) to 50°C (122°F): for the machine types of 11GW and 11GX
 - From 10°C (50°F) to 35°C (95°F): for the machine types of 11BW and 11BX

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications^[1]

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant
- REACH
- WEEE

Notes:

1. ENERGY STAR 8.0 and EPEAT are not available for the models with I/O box

Other Certifications

Other Certifications

TÜV Rheinland® Ultra Low Noise

Mil-Spec Test

- MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)
- None

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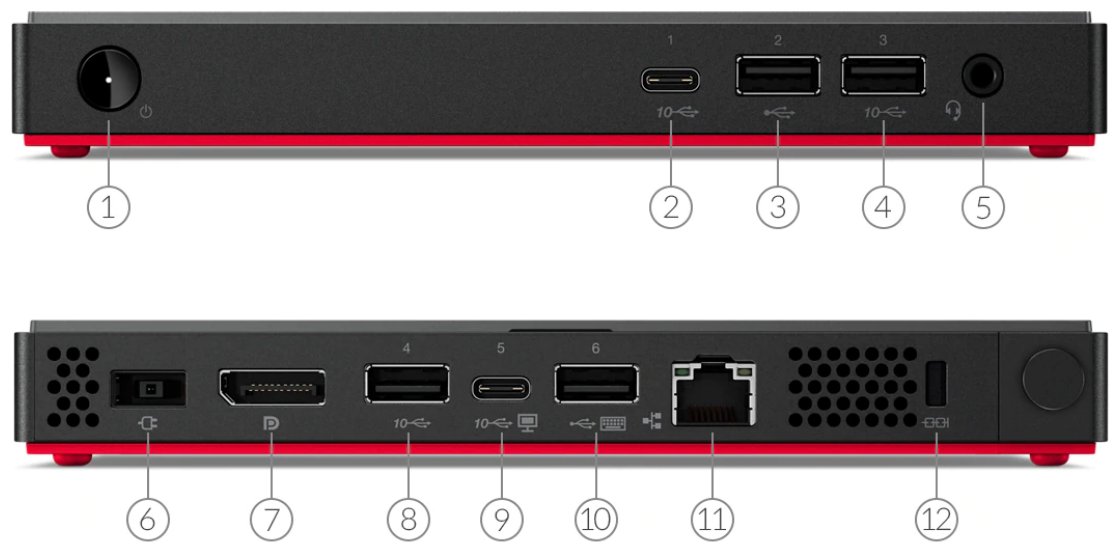


AMD



AMD

OVERVIEW



1. Power button	7. DisplayPort
2. USB-C 3.2 Gen 2	8. USB 3.2 Gen 2
3. USB 2.0	9. USB-C 3.2 Gen 2 (display and power-in)
4. USB 3.2 Gen 2	10. USB 2.0
5. Headphone / microphone combo jack (3.5mm)	11. Ethernet (RJ-45)
6. Power connector	

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 3300U	4	4	2.1GHz	3.5GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon™ Vega 6 Graphics

Operating System

Operating System**

- Windows® 10 IoT Enterprise (Thin Client)
- LeTOS V2 (Lenovo® Terminal Operating System, Linux-based)
- No operating system

Graphics

Graphics^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
AMD Radeon Vega 6 Graphics	Integrated	Shared	1x DisplayPort™, 1x USB-C®	3840x2160@60Hz(DP), 3840x2160@60Hz(USB-C)	DirectX® 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 2 independent displays via onboard ports (DisplayPort and USB-C)

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory^[1]

8GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type

DDR4-2400

Notes:

1. The max memory is based on the test results with current Lenovo memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 2x M.2 SSD

- M.2 SSD up to 256GB each

Storage Type***

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-

ThinkCentre M75n Thin Client

M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233 codec

Speakers

Single speaker, 1W x1

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
65W	Adapter	89%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- No mouse

Mechanical

Form Factor

Nano (0.35L)

Dimensions (WxDxH)

179 x 88 x 22 mm (7.05 x 3.46 x 0.87 inches)

Packaging Dimensions (WxDxH)

490 x 125 x 255 mm (19.29 x 4.92 x 10.04 inches)

Weight

Around 0.505 kg (1.11 lbs)

Packaging Weight

0.83 kg (1.83 lbs)

Case Color

Iron grey (top cover), black (mid bezel), red (bottom cover)

Bays

No bays

Expansion Slots

- One M.2 slot (for WLAN)
- Two M.2 slots (for SSD, one supports up to PCIe 3.0 x4, one supports up to PCIe 3.0 x2 or SATA interface)

Stand

No stand

IO Box

No IO box

Mounting**

- VESA mount bracket kit with adapter holder, supports VESA mount 75mm and 100mm
- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- DIN rail mount bracket kit
- None

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111FP-CG, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®^[1]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Rear Ports^[2]

- 1x USB 2.0
- 1x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2 (support display function and power-in [20V and >45W])
- 1x DisplayPort
- 1x Ethernet (RJ-45)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- USB-C to DP dongle
- USB-C to HDMI® dongle
- USB-C to VGA dongle
- DP to HDMI 1.4 dongle
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

DASH 1.1 / 1.2

SERVICE

Warranty

Base Warranty[]**

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant
- REACH
- WEEE

Other Certifications

Other Certifications

TÜV Rheinland® Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

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AMD



AMD



AMD



AMD

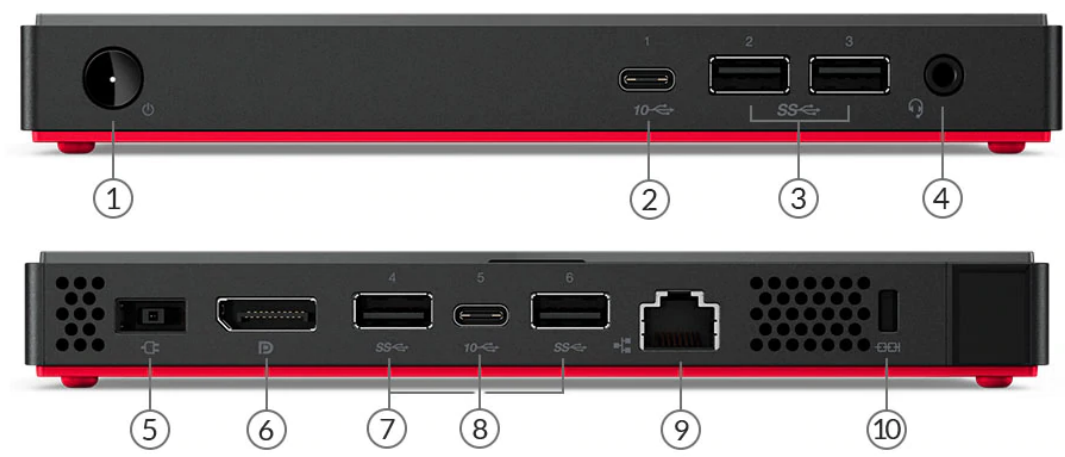


AMD



AMD

OVERVIEW



1. Power button	6. DisplayPort
2. USB-C 3.2 Gen 2	7. 2x USB 3.2 Gen 2
3. 2x USB 3.2 Gen 2	8. USB-C 3.2 Gen 2 (display and power-in)
4. Headphone / microphone combo jack (3.5mm)	9. Ethernet (RJ-45)
5. Power connector	10. Kensington Security Slot

PERFORMANCE

Processor

Processor Family

8th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-8145U	2	4	2.1GHz	3.9GHz	4MB	DDR4-2400	Intel UHD Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	DDR4-2400	Intel UHD Graphics

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD Graphics 620	Integrated	Shared	1x DP, 1 USB-C®	4096x2304@60Hz(DP); 4096x2304@60Hz(USB-C)	DirectX® 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 2 independent displays via onboard ports (DisplayPort™ and USB-C)

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots

Memory Type^[2]

DDR4-2666

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. Installed memory is actually 2666MHz, but runs at 2400MHz due to the memory support capability of processor

Storage

Storage Support^[1]

- Up to two drives, 2x M.2 SSD
- M.2 SSD up to 1TB each
 - Optional Intel Optane™ Memory Integrated with SSD, M.2

Storage Type***

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

RAID

RAID 0/1 support for M.2 SSDs (RAID preset only available via special bid model)

- Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

- Optical**
- None
- Card Reader**
- No card reader

Multi-Media

- Audio Chip**
- High Definition (HD) Audio, Realtek® ALC233VB codec
- Speakers**
- Single speaker, 1W x1

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
65W	Adapter	88%	-
No power supply	-	-	-

DESIGN

Input Device

- Keyboard****
- Lenovo Calliope Keyboard (USB connector), black
 - Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
 - Lenovo Traditional Keyboard (USB connector), black
 - No keyboard

- Mouse****
- Lenovo Calliope Mouse (USB connector), black
 - Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
 - Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
 - No mouse

Mechanical

- Form Factor**
- Nano (0.35L)
- Dimensions (WxDxH)**

179 x 88 x 22 mm (7.05 x 3.46 x 0.87 inches)

Packaging Dimensions (WxDxH)

490 x 125 x 255 mm (19.29 x 4.92 x 10.04 inches)

Weight

Around 0.505 kg (1.11 lbs)

Packaging Weight

0.83 kg (1.83 lbs)

Case Color

Iron grey (top cover), black (mid bezel), red (bottom cover)

Bays

No bays

Expansion Slots

Three M.2 slots (one for WLAN, two for SSD)

Stand

No stand

IO Box

No IO box

Mounting**

- VESA mount bracket kit with adapter holder, supports VESA mount 75mm and 100mm
- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- DIN rail mount bracket kit
- None

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®[1]**

- 802.11ac 1x1 Wi-Fi® + Bluetooth 5.0, M.2 card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9462, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, Intel vPro technology support, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Rear Ports^[2]

- 2x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2 (support display function and power-in [20V and >45W])
- 1x DisplayPort
- 1x Ethernet (RJ-45)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- USB-C to DP dongle
- USB-C to HDMI® dongle
- USB-C to VGA dongle
- DP to HDMI 1.4 dongle
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant
- REACH
- WEEE

Other Certifications

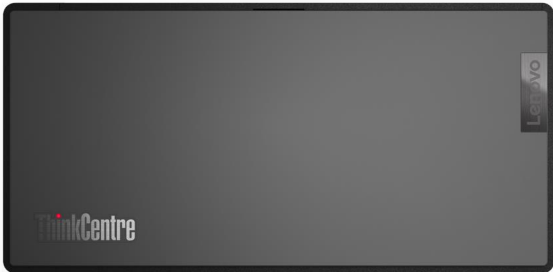
Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

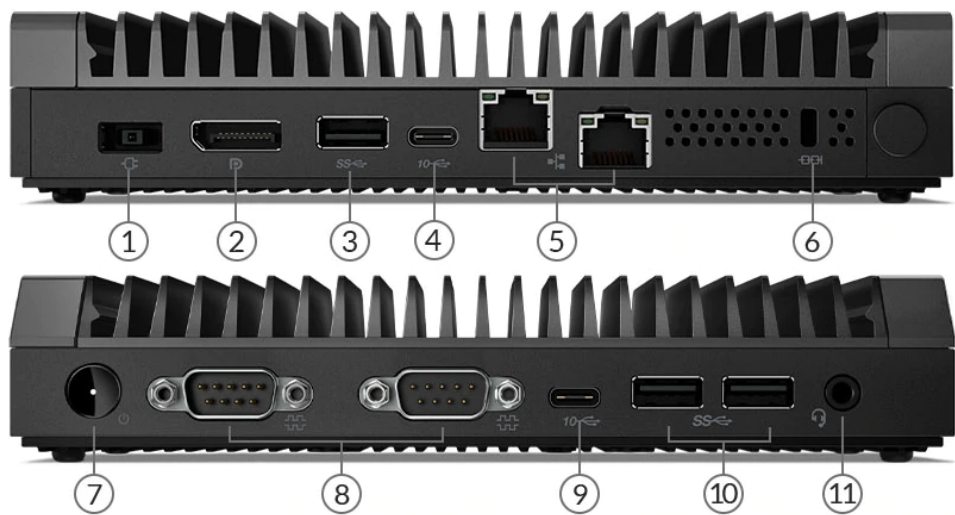
Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

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OVERVIEW



1. Power connector	7. Power button
2. HDMI (for 8145UE models) / DP (for others)	8. 2x Serial (RS232)
3. USB 3.2 Gen 2 (USB 2.0 for Celeron models)	9. USB-C 3.2 Gen 2
4. USB-C 3.2 Gen 2 (display and power-in)	10. 2x USB 3.2 Gen 2
5. 2x Ethernet (1x Ethernet for Celeron)	11. Headphone / microphone combo jack (3.5mm)
6. Kensington Security Slot	

PERFORMANCE

Processor

Processor Family

Intel® Celeron® or 8th Generation Intel Core™ i3 / i5 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 4205U	2	2	1.8GHz	-	2MB	DDR4-2133	Intel UHD Graphics
Celeron 4305UE	2	2	2.0GHz	-	2MB	DDR4-2133	Intel UHD Graphics 610
Core i3-8145U	2	4	2.1GHz	3.9GHz	4MB	DDR4-2400	Intel UHD Graphics
Core i3-8145UE	2	4	2.2GHz	3.9GHz	4MB	DDR4-2400	Intel UHD Graphics 620
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- FreeDOS
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics	Integrated	Shared	1x DP, 1x USB-C®	4096x2304@60Hz(DP), 4096x2304@60Hz(USB-C)	DirectX® 12
Intel UHD Graphics 610	Integrated	Shared	1x DP, 1 USB-C	4096x2304@60Hz(DP); 4096x2304@60Hz(USB-C)	DirectX 12
Intel UHD Graphics 620	Integrated	Shared	1x HDMI®, 1 USB-C	4096x2304@60Hz(USB-C)	DirectX 12

Notes:

- The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 2 independent displays via onboard ports (DisplayPort™ and USB-C, 8145UE models support HDMI and USB-C)

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory[1]

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots

Memory Type[2]

DDR4-2666

- Notes:
- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
 - 2. Installed memory is actually 2666MHz, but runs at 2133MHz or 2400MHz depending on the memory support capability of processor.

Storage

Storage Support^[1]

- Up to two drives, 2x M.2 SSD
- M.2 SSD up to 1TB each
 - Optional Intel Optane™ Memory Integrated with SSD, M.2

Storage Type^{***}

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

RAID

RAID 0/1 support for M.2 SSDs (RAID preset only available via special bid model)

- Notes:
- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

- Optical**
- None
- Card Reader**
- No card reader

Multi-Media

- Audio Chip**
- High Definition (HD) Audio, Realtek® ALC233VB codec
- Speakers**
- Single speaker, 1W x1

Power Supply

Power Supply^{**}

Power	Type	Efficiency	Key Features
65W	Adapter	88%	Autosensing, wide temperature
65W	Adapter	88%	-
No power supply	-	-	-

DESIGN

Input Device

- Keyboard^{**}**
- Lenovo Calliope Keyboard (USB connector), black
 - Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
 - Lenovo Traditional Keyboard (USB connector), black
 - No keyboard
- Mouse^{**}**
- Lenovo Calliope Mouse (USB connector), black

- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

Nano (0.55L)

Dimensions (WxDxH)

Models	Dimensions
Nano only	179 x 88 x 34.5 mm (7.05 x 3.46 x 1.36 inches)
Nano with IO box	179 x 88 x 61.3 mm (7.05 x 3.46 x 2.41 inches)

Packaging Dimensions (WxDxH)

490 x 125 x 255 mm (19.29 x 4.92 x 10.04 inches)

Weight

Models	Weight
Nano only	Around 0.72 kg (1.58 lbs)
Nano with IO box	Around 1.2 kg (2.65 lbs)

Packaging Weight

0.83 kg (1.83 lbs)

Case Color

Iron grey (top cover), black (mid bezel), black (bottom cover)

Bays

No bays

Expansion Slots

Three M.2 slots (one for WLAN, two for SSD)

Stand

No stand

IO Box

- IO box: 2x serial (RS232 / RS422 / RS485, SDK selectable) and 2x Ethernet (RJ-45, Realtek RTL8153B, gigabit Ethernet) on front, 1x DIO (4DI / 4DO), 1x USB-C (connect to Nano) and 1x DC-in connector (9V - 36V) on rear
- No IO box

Mounting**

- VESA mount bracket kit with adapter holder, supports VESA mount 75mm and 100mm
- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- DIN rail mount bracket kit
- None

CONNECTIVITY

Network

Onboard Ethernet**[1]

- Two gigabit Ethernet, Intel Ethernet Connection I219-LM and Realtek RTL8111H, 2x RJ-45, supports Wake-on-LAN
- One gigabit Ethernet, Realtek RTL8111K, 1x RJ-45, supports Wake-on-LAN
- Two gigabit Ethernet, Realtek RTL8111K and RTL8111H, 2x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®**[2]

- 802.11ac 1x1 Wi-Fi® + Bluetooth 5.0, M.2 card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9462, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, Intel vPro technology support, M.2 card

ThinkCentre M9On-1 Nano IoT

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- No WLAN and Bluetooth

WWAN

- Intel XMM 7360, 4G CAT9, M.2 Card
- No support

Notes:

1. Onboard Ethernet varies by processor:
RTL8111K, 1x RJ-45 come with Celeron 4205U / 4305UE
RTL8111K + RTL8111H, 2x RJ-45 come with Core i3-8145U / i3-8145UE
I219-LM + RTL8111H, 2x RJ-45 come with Core i5-8365U
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)
- 2x serial (RS-232)

Optional Front Ports

- 2x gigabit Ethernet (RJ-45) on SE30 IO box
- 2x serial (RS232 / RS422 / RS485, SDK selectable) on SE30 IO box

Rear Ports^[2]

- 1x USB 2.0 (for Celeron models)
- 1x USB 3.2 Gen 2 (for i3 / i5 models only)
- 1x USB-C 3.2 Gen 2 (support display function and power-in [20V and >45W])
- 1x HDMI (for 8145UE models)
- 1x DisplayPort (for 4205U / 4305UE / 8145U / 8365U models)
- 1x Ethernet (RJ-45, for Celeron models)
- 2x Ethernet (RJ-45, for i3 / i5 models)

Optional Rear Ports

- 1x DC-in 3pin Phoenix connector on SE30 IO box
- 1x DIO (4DI / 4DO) on SE30 IO box

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- USB-C to DP dongle
- USB-C to HDMI dongle
- USB-C to VGA dongle
- DP to HDMI 1.4 dongle
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

ThinkCentre M9On-1 Nano IoT

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Storage: -40°C (-40°F) to 60°C (140°F)
- Operating:
 - From 0°C (32°F) to 50°C (122°F): for the machine types of 11AK, 11AL, 11AM, 11AS, 11J3, 11J4, 11J7, and 11J8
 - From 0°C (32°F) to 35°C (95°F): for the machine types of 11AH and 11AJ

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications^[1]

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant
- REACH
- WEEE

Notes:

1. Energy Star 8.0 and EPEAT not for the models with I/O box

Other Certifications

Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

Mil-Spec Test^[1]

- MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)
- None

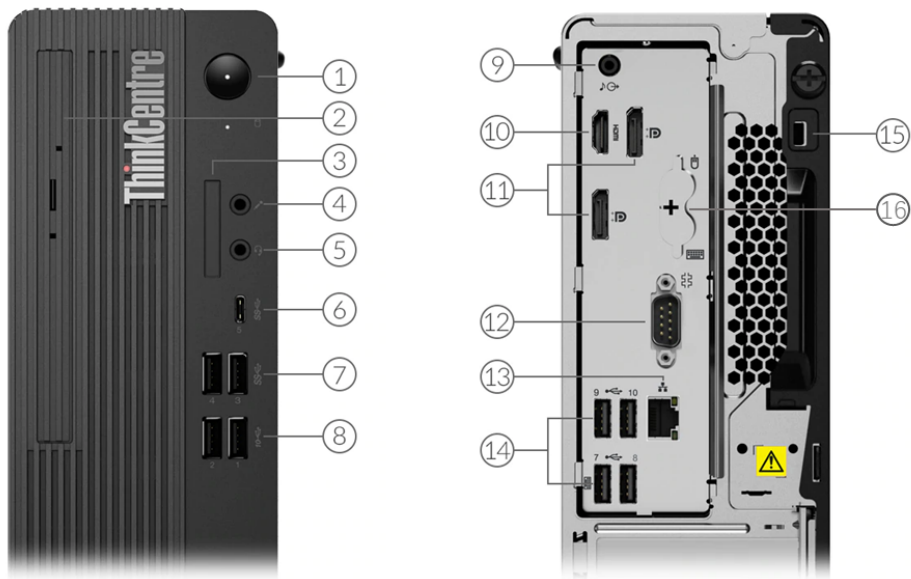
Notes:

1. Not for the models with I/O box

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- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Power button	9. Line-out (3.5mm)
2. Optical drive *	10. HDMI
3. Card reader *	11. 2x DisplayPort
4. Microphone (3.5mm)	12. Serial
5. Headphone / microphone combo jack (3.5mm)	13. Ethernet (RJ-45)
6. USB-C 3.2 Gen 1	14. 4x USB 2.0
7. 2x USB 3.2 Gen 1	15. Kensington Security Slot
8. 2x USB 3.2 Gen 2	16. 2x PS/2 ports (keyboard / mouse) *

- Notes:
- Ports with * are only available on selected models
 - More ports are available through the optional expansion cards (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 10th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5900	2	2	3.4GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5905	2	2	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5920	2	2	3.5GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6400	2	4	4.0GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6500	2	4	4.1GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6600	2	4	4.2GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400F	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	-
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10505	6	12	3.2GHz	4.6GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-10700F	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	-
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900F	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	-

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	1x HDMI®, 2x DP	1920x1080@60Hz(HDMI), 4096x2304@60Hz(DP)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x HDMI, 2x DP	1920x1080@60Hz(HDMI), 4096x2304@60Hz(DP)	DirectX 12
AMD Radeon™ 520	Discrete	2GB GDDR5	2x DP 1.2	4096x2160@60Hz(DP)	DirectX 12
AMD Radeon RX	Discrete	4GB	1x HDMI 2.0, 1x DP	4096x2160@60Hz(HDMI),	DirectX 12

550X		GDDR5	1.4	3840x2160@60Hz(DP)	
NVIDIA® GeForce GT 730	Discrete	2GB GDDR5	1x VGA, 1x HDMI 1.4	2048x1536@75Hz(VGA), 3840x2160@30Hz(HDMI)	DirectX 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support^[1]

Supports up to 3 independent displays via onboard ports (HDMI and 2x DisplayPort™), more displays support via discrete graphics

Notes:

1. Onboard video ports are only available for the models with integrated graphics

Chipset

Chipset

Intel H470 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-2933

Memory Slots

Four DDR4 DIMM slots, dual-channel capable

Memory Type^{**}

- DDR4-2666
- DDR4-2933

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to three drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB each
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB
- Optional Intel Optane™ Memory, M.2

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical**

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

Speakers

Single speaker, 1W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
180W	Fixed	85%	-
260W	Fixed	85%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
380W	Fixed	92%	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

SFF (8.2L)

Dimensions (WxDxH)

93 x 298 x 340 mm (3.6 x 11.7 x 13.4 inches)

Packaging Dimensions (WxDxH)

195 x 395 x 530 mm (7.68 x 15.55 x 20.87 inches)

Weight

Around 5.3 kg (11.7 lbs)

Packaging Weight

7.5 kg (16.75 lbs)

Case Color

Black

Bays

- 1x 2.5" disk bay (optional, or bay comes with disk)
- 1x 3.5" disk bay
- 1x slim ODD bay

Expansion Slots

- One PCIe 3.0 x1, low-profile (length < 155mm, height < 68mm)
- One PCIe 3.0 x16, low-profile (length < 155mm, height < 68mm)
- Two dummy slots, only brackets for optional port extension
- Two M.2 slots (one for WLAN, one for SSD)

Stand

- Vertical stand
- No stand

Others

- (Optional) Dust filter
- Supports Smart Power On

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-V, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet**

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- No optional Ethernet

WLAN + Bluetooth®^[1]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9462, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

- 1x card reader
- None

Rear Ports^[2]

- 4x USB 2.0
- 1x HDMI
- 2x DisplayPort
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports***

- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel

- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to HDMI cable
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

Non-vPro

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL**Operating Environment****Temperature**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS**Green Certifications****Green Certifications^[1]**

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant

Notes:

1. ENERGY STAR 8.0 and EPEAT are only available for MT 11DB/11DC

Other Certifications**Other Certifications**

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

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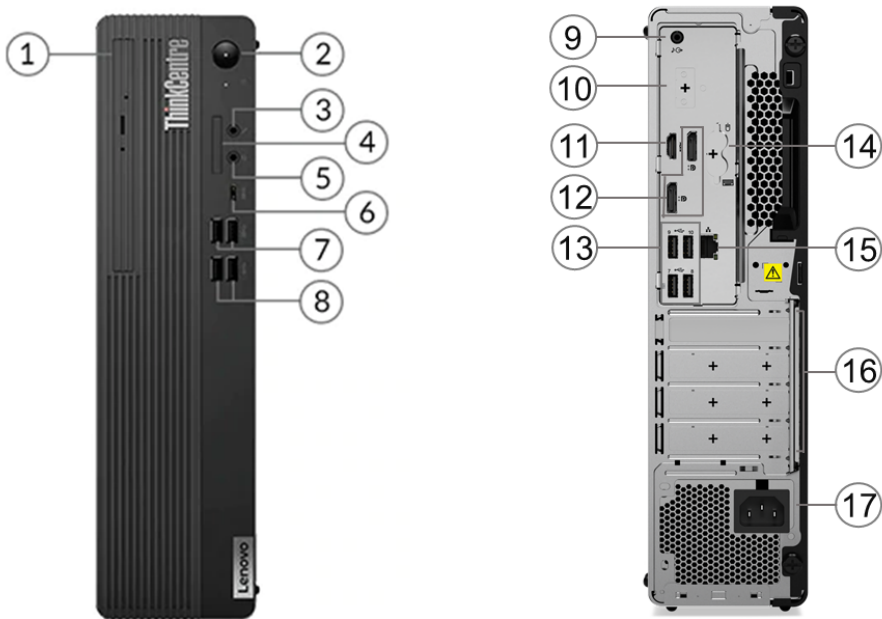
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OVERVIEW



1. Optical drive *	9. Line-out (3.5mm)
2. Power button	10. Flex IO *
3. Microphone (3.5mm)	11. HDMI 2.1 TMDS
4. Card reader *	12. 2x DisplayPort 1.4
5. Headphone / microphone combo jack (3.5mm)	13. 4x USB 2.0
6. USB-C 3.2 Gen 1	14. 2x PS/2 ports (keyboard / mouse) *
7. 2x USB 3.2 Gen 1	15. Ethernet (RJ-45)
8. 2x USB 3.2 Gen 2	16. Optional ports on expansion cards *

- Notes:
- Ports with * are only available on selected models
 - More ports are available through the optional expansion cards (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

Intel® Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Pentium Gold G7400	2	4	3.7GHz	-	6MB	Intel UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	Intel UHD Graphics 730
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	Intel UHD Graphics 730
Core i5-12400F	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	-
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	Intel UHD Graphics 770
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	Intel UHD Graphics 770
Core i7-12700F	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	-
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	Intel UHD Graphics 770
Core i9-12900F	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	-

Operating System

Operating System

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 IoT Enterprise LTSC 2021
- Ubuntu Linux
- No operating system

Graphics

Graphics^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 710	Integrated	Shared	2x DP 1.4 HBR2, 1x HDMI® 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C®)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX® 12	-
Intel UHD graphics 730	Integrated	Shared	2x DP 1.4 HBR2, 1x HDMI 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX 12	-

Intel UHD graphics 770	Integrated	Shared	2x DP 1.4 HBR2, 1x HDMI 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HD MI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX 12	-
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Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays via onboard ports (2x DP, 1x HDMI, and 1x optional Flex IO), more displays support via discrete graphics

Notes:

1. Onboard video ports are only available for the models with integrated graphics

Chipset

Chipset

Intel Q670 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-3200

Memory Slots

Four DDR4 DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}

Up to three drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB each
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB

Storage Type

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-	Opal
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	-	Opal2

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

2. The max capacity of SSD/HDD is based on the test results with current Lenovo SSD/HDD offerings. The system may support more

capacity as the technology develops.

Removable Storage

Optical

- DVD-ROM, SATA connector, slim (9.0mm)
- DVD burner (DVD±RW), SATA connector, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC897Q-CG codec

Speakers

Single speaker, 1W x1

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
180W	Fixed	85%	100V - 240V
260W	Fixed	90%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
380W	Fixed	92%	100-240V, 50-60Hz

DESIGN

Input Device

Keyboard

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Mouse (PS/2 connector), black (only available via special bid)
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

SFF (8.2L)

Dimensions (WxDxH)

93 x 298 x 340 mm (3.6 x 11.7 x 13.4 inches)

Weight^[1]

Around 5.3 kg (11.7 lbs)

Case Color

Black

Bays^[2]

- 1x 2.5" disk bay
- 1x 3.5" disk bay
- 1x slim ODD bay

Expansion Slots

- One PCIe 4.0 x16, low-profile, length ≤ 155mm, height ≤ 70mm
- Two PCIe 3.0 x1, low-profile, length ≤ 155mm, height ≤ 70mm
- Two M.2 slots (one for WLAN, one for SSD)

EOU

Toolless cover, disk, optical, extension card assembly / removal

Stand

- Vertical stand
- No stand

Others

- (Optional) Dust filter
- (Optional) Smart Cable (USB-A to USB-C)
- Supports Smart Power On

Notes:

1. Weight may vary by configuration.
2. 2.5" HDD tray is optional, or comes with 2.5 HDD. 3.5" bay supports 2.5" / 3.5" HDD, 3.5" to 2.5 converter comes with 2nd 2.5" HDD.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- 2.5 Gigabit Ethernet, Realtek RTL8125BGS, 1x RJ-45, PCIe x1
- No optional Ethernet

WLAN + Bluetooth^[1]

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 1 (15W charging)
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

1x card reader

Rear Ports^[2]

- 4x USB 2.0
- 1x HDMI 2.1 TMDS
- 2x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports

- 1x USB-C 3.2 Gen 1 with DisplayPort function and 5V@3A charging (Flex IO)
- 1x HDMI 2.1 TMDS (Flex IO)
- 1x VGA (Flex IO)

ThinkCentre M70s Gen 3

- 1x DP 1.2 (Flex IO)
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 1x serial
- 1x 2nd serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS (Level 2)
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Essentials

- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation, Contamination by Fluids, Salt Fog)

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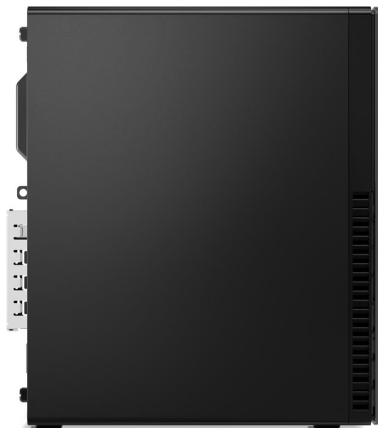
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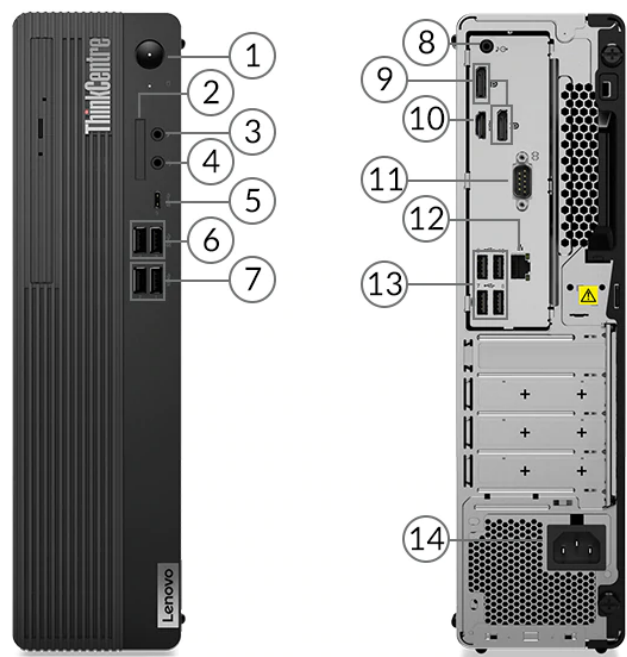


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OVERVIEW



1. Power button	8. Line-out (3.5mm)
2. Card reader	9. 2x DisplayPort
3. Microphone (3.5mm)	10. HDMI
4. Headphone / microphone combo jack (3.5mm)	11. Serial
5. USB-C 3.2 Gen 1	12. Ethernet (RJ-45)
6. 2x USB 3.2 Gen 1	13. 4x USB 2.0
7. 2x USB 3.2 Gen 2	14. Power connector

- Notes:
- More ports are available through the optional expansion cards (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

AMD Athlon™ or AMD Ryzen™ 3 / 5 / 7 / 9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Athlon Silver 3050GE	2	4	3.4GHz	3.4GHz	1MB L2 / 4MB L3	DDR4-2666	AMD Radeon™ Graphics
AMD Athlon Gold PRO 3150G	4	4	3.5GHz	3.9GHz	2MB L2 / 4MB L3	DDR4-2933	AMD Radeon Graphics
AMD Ryzen 3 3200G	4	4	3.6GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-2933	AMD Radeon Vega 8 Graphics
AMD Ryzen 3 4300G	4	8	3.8GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 3 5300G	4	8	4.0GHz	4.2GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 3 PRO 4350G	4	8	3.8GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 3 PRO 5350G	4	8	4.0GHz	4.2GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 4600G	6	12	3.7GHz	4.2GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 5600G	6	12	3.9GHz	4.4GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 3350G	4	8	3.6GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-2933	AMD Radeon Vega 11 Graphics
AMD Ryzen 5 PRO 3400G	4	8	3.7GHz	4.2GHz	2MB L2 / 4MB L3	DDR4-2933	AMD Radeon Vega 11 Graphics
AMD Ryzen 5 PRO 3600	6	12	3.6GHz	4.2GHz	3MB L2 / 32MB L3	DDR4-3200	-
AMD Ryzen 5 PRO 4650G	6	12	3.7GHz	4.2GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650G	6	12	3.9GHz	4.4GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 4700G	8	16	3.6GHz	4.4GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5700G	8	16	3.8GHz	4.6GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 3700	8	16	3.6GHz	4.4GHz	4MB L2 / 32MB L3	DDR4-3200	-
AMD Ryzen 7 PRO 4750G	8	16	3.6GHz	4.4GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5750G	8	16	3.8GHz	4.6GHz	4MB L2 / 16MB L3	DDR4 3200	AMD Radeon Graphics
AMD Ryzen 9 PRO 3900	12	24	3.1GHz	4.3GHz	6MB L2 / 64MB L3	DDR4-3200	-

Operating System

Operating System**

- Windows® 11 Pro 64

- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1][2]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
AMD Radeon Graphics	Integrated	Shared	2x DisplayPort™ 1.4, 1x HDMI® 1.4	4096x2160@60Hz(DP), 4096x2160@24Hz(HDMI)	DirectX® 12
AMD Radeon Vega 8 Graphics	Integrated	Shared	2x DisplayPort 1.4, 1x HDMI 1.4	4096x2160@60Hz(DP), 4096x2160@24Hz(HDMI)	DirectX 12
AMD Radeon Vega 11 Graphics	Integrated	Shared	2x DisplayPort 1.4, 1x HDMI 1.4	4096x2160@60Hz(DP), 4096x2160@24Hz(HDMI)	DirectX 12
AMD Radeon 520	Discrete	2GB GDDR5	2x DP 1.2	4096x2160@60Hz(DP)	DirectX 12
AMD Radeon RX 550X	Discrete	4GB GDDR5	1x HDMI 2.0, 1x DP 1.4	4096x2160@60Hz(HDMI), 3840x2160@60Hz(DP)	DirectX 12
AMD Radeon RX 6400	Discrete	4GB GDDR6	1x HDMI 2.1, 1x DP 1.4	7680x4320@60Hz(HDMI), 7680x4320@60Hz(DP)	DirectX 12, OpenGL 4.6

- Notes:
1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)
 2. AMD Radeon 520 is not available for MT 11R7 / 11R8 / 11R9 / 11RA

Monitor Support

Monitor Support

Supports up to 3 independent displays via onboard ports (HDMI and 2x DisplayPort), more displays support via discrete graphics

Chipset

Chipset

AMD PRO 565 chipset

Memory[1]

Max Memory[1][2]

Up to 128GB DDR4-3200

Memory Slots

Four DDR4 DIMM slots, dual-channel capable

Memory Type**[3]

- DDR4-1866
- DDR4-2133
- DDR4-2400
- DDR4-2666
- DDR4-3200

- Notes:
1. Recommend to choose the models with more than 4GB for better performance and experience
 2. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
 3. Installed memory is actually 3200MHz, but may run at 1866MHz, 2133MHz, 2400MHz or 2666MHz depending on the memory support capability of processor

Storage

Storage Support^[1]

Up to three drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB each
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal

RAID

RAID 0/1 support for HDDs (RAID preset only available via special bid model)

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical^{**}

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

Speakers

- Single speaker, 1W x1
- No speakers

Power Supply

Power Supply^{**}

Power	Type	Efficiency	Key Features
180W	Fixed	85%	-
260W	Fixed	85%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz

DESIGN

Input Device

Keyboard^{**}

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse^{**}

- Lenovo Calliope Mouse (USB connector), black

- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

SFF (8.2L)

Dimensions (WxDxH)

93 x 298 x 340 mm (3.6 x 11.7 x 13.4 inches)

Weight

Around 5.3 kg (11.7 lbs)

Case Color

Black

Bays

- 1x 2.5" disk bay (bay comes with disk)
- 1x 3.5" disk bay
- 1x slim ODD bay

Expansion Slots

- One PCIe 3.0 x1, low-profile (length < 155mm, height < 68mm)
- One PCIe 3.0 x16, low-profile (length < 155mm, height < 68mm)
- Two dummy slots, only brackets for optional port extension
- Two M.2 slots (one for WLAN, one for SSD)

EOU

EOU design for chassis open, M.2 SSD, HDD, ODD, memory, and PCIe extension card

Stand

- Vertical stand
- No stand

Others

- (Optional) Dust filter
- Supports Smart Power On

CONNECTIVITY

Network^[1]

Onboard Ethernet^{**}

- Gigabit Ethernet, Realtek RTL8111EPV, 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Realtek RTL8111HN, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet^{**[2]}

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Bitland RTL8111FP, 1x RJ-45, PCIe x1
- No optional Ethernet

WLAN + Bluetooth^{**[3]}

- Mediatek Wi-Fi® 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- No WLAN and Bluetooth

Notes:

1. This system does not support Power Over Ethernet (PoE). If the system is used in a PoE environment, then a Network Isolator is required to prevent possible damage to the system, PoE equipment, or both.
2. RTL8111FP is not available for AP countries
3. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

- 1x card reader
- None

Rear Ports^[2]

- 4x USB 2.0
- 1x HDMI
- 2x DisplayPort
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports^{*}**

- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- 1x serial
- 1x parallel
- None

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable^{***}**

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- DASH 1.2
- Non-DASH

Notes:

1. DASH 1.2 is an optional feature for the selected MTs, MT 11W1 / 11W2 / 11W3 / 11W4 do not support DASH.

SERVICE

Warranty

Base Warranty^{[1]}**

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications^[1]

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant

Notes:

1. ENERGY STAR 8.0 and EPEAT are only available for selected MTs

Other Certifications

Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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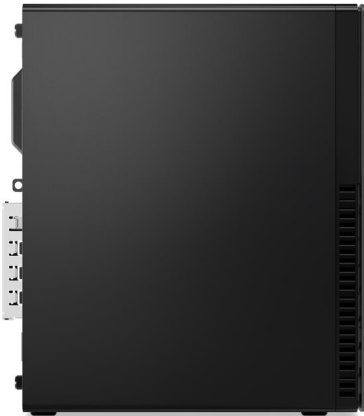
AMD



AMD



AMD



AMD

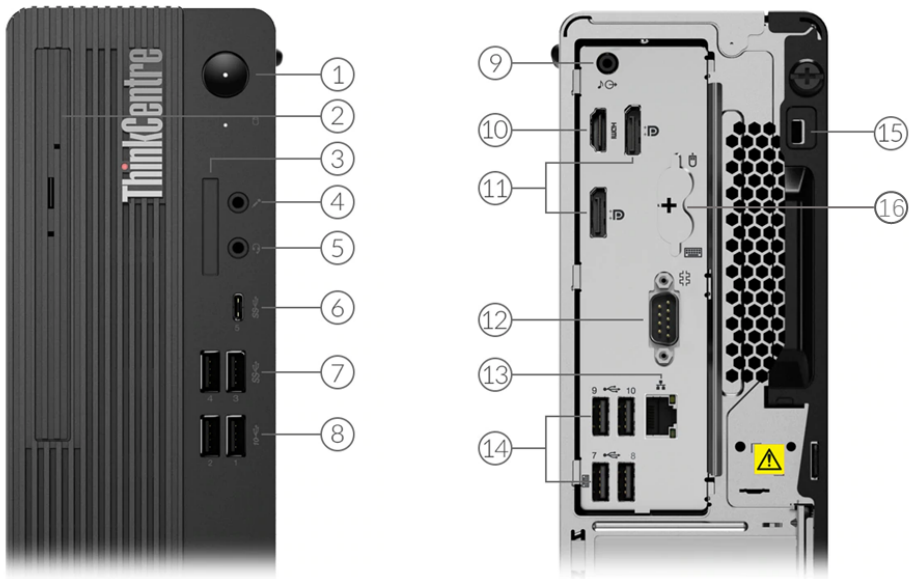


AMD



AMD

OVERVIEW



1. Power button	9. Line-out (3.5mm)
2. Optical drive *	10. HDMI
3. Card reader *	11. 2x DisplayPort
4. Microphone (3.5mm)	12. Serial
5. Headphone / microphone combo jack (3.5mm)	13. Ethernet (RJ-45)
6. USB-C 3.2 Gen 1	14. 4x USB 3.2 Gen 1
7. 2x USB 3.2 Gen 1	15. Kensington Security Slot
8. 2x USB 3.2 Gen 2	16. 2x PS/2 ports (keyboard / mouse) *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 10th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5900	2	2	3.4GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5905	2	2	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5920	2	2	3.5GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6400	2	4	4.0GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6500	2	4	4.1GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6600	2	4	4.2GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400F	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	-
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-10700F	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	-
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900F	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	-

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	1x HDMI®, 2x DP	1920x1080@60Hz(HDMI), 4096x2304@60Hz(DP)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x HDMI, 2x DP	1920x1080@60Hz(HDMI), 4096x2304@60Hz(DP)	DirectX 12
AMD Radeon™ 520	Discrete	2GB GDDR5	2x DP 1.2	4096x2160@60Hz(DP)	DirectX 12
AMD Radeon RX 550X	Discrete	4GB GDDR5	1x HDMI 2.0, 1x DP 1.4	4096x2160@60Hz(HDMI), 3840x2160@60Hz(DP)	DirectX 12

NVIDIA® GeForce GT 730	Discrete	2GB GDDR5	1x VGA, 1x HDMI 1.4	2048x1536@75Hz(VGA), 3840x2160@30Hz(HDMI)	DirectX 12
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Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via onboard ports (HDMI and 2x DisplayPort™), more displays support via discrete graphics

Chipset

Chipset

Intel Q470 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-2933

Memory Slots

Four DDR4 DIMM slots, dual-channel capable

Memory Type^{**}

- DDR4-2666
- DDR4-2933

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to three drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB each
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB
- Optional Intel Optane™ Memory, M.2

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

RAID

RAID 0/1 support for HDDs (RAID preset only available via special bid model)

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical^{**}

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)

- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

Speakers

Single speaker, 1W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
180W	Fixed	85%	-
260W	Fixed	85%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
380W	Fixed	92%	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

SFF (8.2L)

Dimensions (WxDxH)

93 x 298 x 340 mm (3.6 x 11.7 x 13.4 inches)

Packaging Dimensions (WxDxH)

195 x 395 x 530 mm (7.68 x 15.55 x 20.87 inches)

Weight

Around 5.3 kg (11.7 lbs)

Packaging Weight

7.6 kg (16.76 lbs)

Case Color

Black

Bays

- 1x 2.5" disk bay (optional, or bay comes with disk)
- 1x 3.5" disk bay
- 1x slim ODD bay

Expansion Slots

- One PCIe 3.0 x1, low-profile (length < 155mm, height < 68mm)
- One PCIe 3.0 x16, low-profile (length < 155mm, height < 68mm)
- Two dummy slots, only brackets for optional port extension
- Two M.2 slots (one for WLAN, one for SSD)

Stand

- Vertical stand
- No stand

Others

- (Optional) Dust filter
- Supports Smart Power On

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet**

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- No optional Ethernet

WLAN + Bluetooth®[1]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

- 1x card reader
- None

Rear Ports^[2]

- 4x USB 3.2 Gen 1
- 1x HDMI
- 2x DisplayPort
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports***

- 2x USB 2.0 (via 2-port adapter)
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file

attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;

USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;

USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;

USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;

Thunderbolt™ 3/4: 40 Gbit/s

2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^{[1][2]}

- Intel vPro with Intel AMT 14.0
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL**Operating Environment****Temperature**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS**Green Certifications****Green Certifications**

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant

Other Certifications**Other Certifications**

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

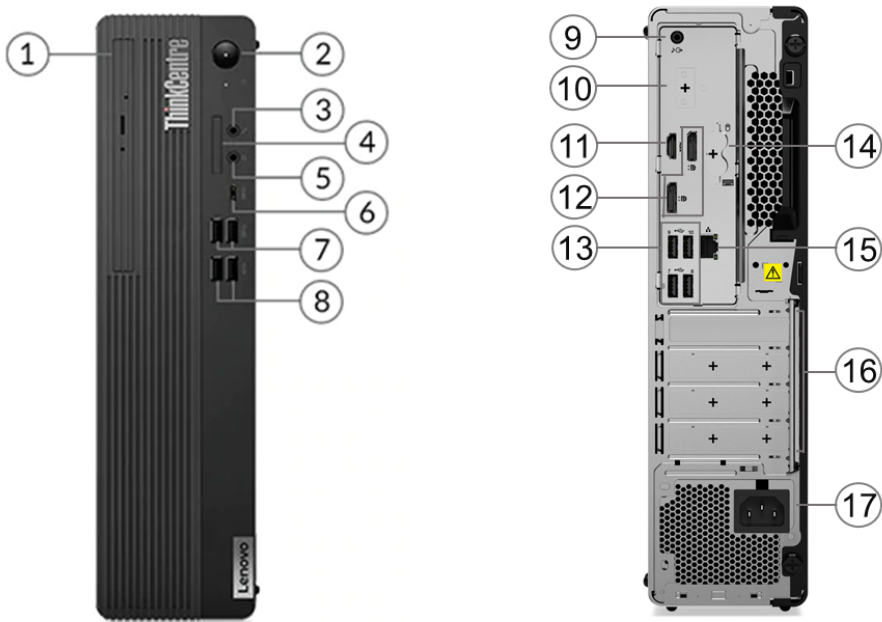
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OVERVIEW



1. Optical drive *	10. Flex IO *
2. Power button	11. HDMI 2.1 TMDS
3. Microphone (3.5mm)	12. 2x DisplayPort 1.4
4. Card reader *	13. 4x USB 3.2 Gen 1
5. Headphone / microphone combo jack (3.5mm)	14. 2x PS/2 ports (keyboard / mouse) *
6. USB-C 3.2 Gen 2	15. Ethernet (RJ-45)
7. 2x USB 3.2 Gen 1	16. Optional ports on expansion cards *
8. 2x USB 3.2 Gen 2	17. Power connector
9. Line-out (3.5mm)	

- Notes:
- Ports with * are only available on selected models
 - More ports are available through the optional expansion cards (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

Intel® Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Pentium Gold G7400	2	4	3.7GHz	-	6MB	Intel UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	Intel UHD Graphics 730
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	Intel UHD Graphics 770
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	Intel UHD Graphics 730
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	Intel UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	Intel UHD Graphics 770
Core i9-12900F	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	-

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 IoT Enterprise LTSC 2021
- Ubuntu Linux
- No operating system

Graphics

Graphics***[]

Graphics	Type	Memory	Boost Clock	TGP	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 710	Integrated	Shared	-	-	2x DP 1.4 HBR2, 1x HDMI® 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C®)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX® 12	-
Intel UHD graphics 730	Integrated	Shared	-	-	2x DP 1.4 HBR2, 1x HDMI 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HD MI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX 12	-
Intel UHD graphics 770	Integrated	Shared	-	-	2x DP 1.4 HBR2, 1x HDMI 2.1 TMDS, 1x Flex IO	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HD MI) / Flex IO(DP)],	DirectX 12	-

					(VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C)	3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]		
AMD Radeon™ RX 6400	Discrete	4GB GDDR6	-	-	1x HDMI 2.1, 1x DP 1.4	7680x4320@60Hz(HDMI), 7680x4320@60Hz(DP)	DirectX 12, OpenGL 4.6	-

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays via onboard ports (2x DP, 1x HDMI, and 1x optional Flex IO), more displays support via discrete graphics

Notes:

1. Onboard video ports are only available for the models with integrated graphics

Chipset

Chipset

Intel Q670 chipset

Memory

Max Memory^[1]

Up to 128GB DDR5

Memory Slots

Four DDR5 UDIMM slots, dual-channel capable

Memory Type

- DDR5-3600
- DDR5-4000
- DDR5-4400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}

Up to four drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 2x M.2 SSD

- 2.5" HDD up to 1TB
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB each

Storage Type

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	-	Opal2

RAID

RAID 0/1 support (RAID preset only available via special bid model)

- Notes:
- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
 - 2. The max capacity of SSD/HDD is based on the test results with current Lenovo SSD/HDD offerings. The system may support more capacity as the technology develops.

Removable Storage

Optical**

- DVD-ROM, SATA connector, slim (9.0mm)
- DVD burner (DVD±RW), SATA connector, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC897Q-CG codec

Speakers

Single speaker, 1W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
180W	Fixed	85%	100V - 240V
260W	Fixed	90%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
380W	Fixed	92%	100-240V, 50-60Hz

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Keyboard (PS/2 connector), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Mouse (PS/2 connector), black (only available via special bid)
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

SFF (8.2L)

Dimensions (WxDxH)

92.5 x 297.7 x 339.5 mm (3.6 x 11.7 x 13.4 inches)

Packaging Dimensions (WxDxH)

195 x 395 x 530 mm (7.68 x 15.55 x 20.87 inches)

Weight

Around 5.3 kg (11.7 lbs)

Packaging Weight

7.6 kg (16.76 lbs)

Case Color

Black

Bays^[1]

- 1x 2.5" disk bay
- 1x 3.5" disk bay
- 1x slim ODD bay

Expansion Slots

- One PCIe 3.0 x1, low-profile, length ≤ 155mm, height ≤ 70mm
- One PCIe 4.0 x16, low-profile, length ≤ 155mm, height ≤ 70mm
- One PCIe 4.0 x16 (x4 signal), low-profile, length ≤ 155mm, height ≤ 70mm
- Three M.2 slots (one for WLAN, two for SSD)

EOU

Toolless cover, disk, optical, extension card assembly / removal

Stand

- Vertical stand
- No stand

Others

- (Optional) Dust filter
- (Optional) Smart Cable (USB-A to USB-C)
- Supports Smart Power On

Notes:

1. 2.5" HDD tray is optional, or comes with 2.5 HDD. 3.5" bay supports 2.5" / 3.5" HDD, 3.5" to 2.5 converter comes with 2nd 2.5" HDD.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet^{}**

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- 2.5 Gigabit Ethernet, Realtek RTL8125BGS, 1x RJ-45, PCIe x1
- No optional Ethernet

WLAN + Bluetooth^{[1]}**

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB-C 3.2 Gen 2 (support data transfer and 15W charging)
- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

1x card reader

Rear Ports^[2]

- 4x USB 3.2 Gen 1
- 1x HDMI 2.1 TMDS
- 2x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports^{***}

- 1x USB-C 3.2 Gen 1 with DisplayPort function and 5V@3A charging (Flex IO)
- 1x HDMI 2.1 TMDS (Flex IO)
- 1x VGA (Flex IO)
- 1x DP 1.2 (Flex IO)
- 1x USB-C 3.2 Gen 2x2 (via USB-C expansion card, PCIe x4)
- 2x USB 2.0 (via 2-port adapter)
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- 1x serial
- 1x 2nd serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable^{***}

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI dongle
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS (Level 2)
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management**^[1]

- Intel vPro Enterprise
- Intel vPro Essentials
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation, Contamination by Fluids, Salt Fog)

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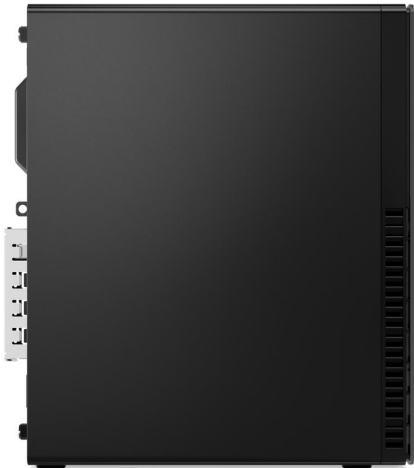
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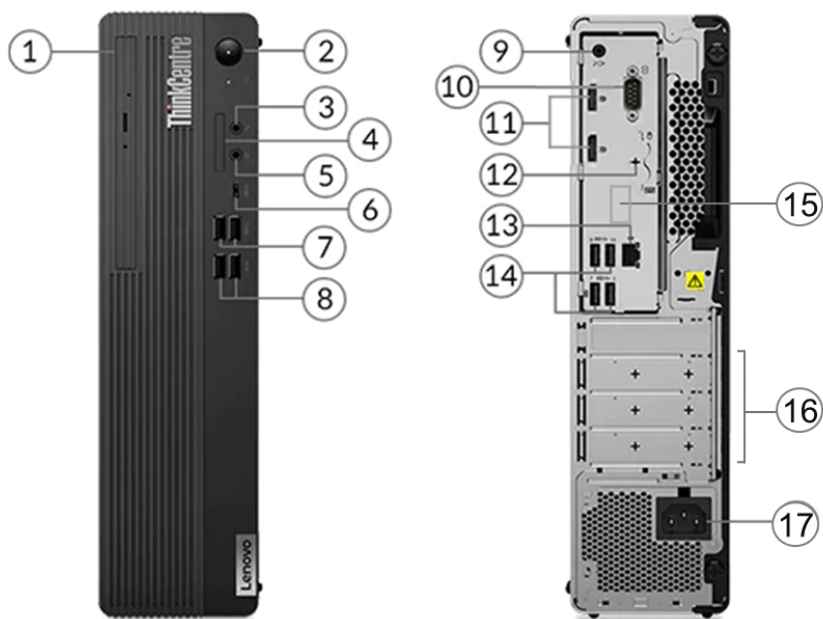


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intel

OVERVIEW



1. Optical drive *	10. Serial
2. Power button	11. 2x DisplayPort
3. Microphone (3.5mm)	12. 2x PS/2 ports (keyboard / mouse) *
4. Card reader *	13. Ethernet (RJ-45)
5. Headphone / microphone combo jack (3.5mm)	14. 4x USB 3.2 Gen 1
6. USB-C 3.2 Gen 1	15. Optional Video Port (HDMI / DP / USB-C) *
7. 2x USB 3.2 Gen 1	16. Optional ports on expansion cards *
8. 2x USB 3.2 Gen 2	17. Power connector
9. Line-out (3.5mm)	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 10th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5900	2	2	3.4GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5905	2	2	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5920	2	2	3.5GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6400	2	4	4.0GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6500	2	4	4.1GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6600	2	4	4.2GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400F	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	-
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-10700F	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	-
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900F	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	-

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	2x DP, 1x optional video port (HDMI® / 3rd DP / USB-C®)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 4096x2304@60Hz(USB-C)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	2x DP, 1x optional video port (HDMI / 3rd DP / USB-C)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 4096x2304@60Hz(USB-C)	DirectX 12
AMD Radeon™ 520	Discrete	2GB GDDR5	2x DP 1.2	4096x2160@60Hz(DP)	DirectX 12
AMD Radeon	Discrete	4GB	1x HDMI 2.0, 1x DP 1.4	4096x2160@60Hz(HDMI),	DirectX 12

RX 550X		GDDR5		3840x2160@60Hz(DP)	
NVIDIA® GeForce GT 730	Discrete	2GB GDDR5	1x VGA, 1x HDMI 1.4	2048x1536@75Hz(VGA), 3840x2160@30Hz(HDMI)	DirectX 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via onboard ports (2x DisplayPort™ and 1x optional port [HDMI / 3rd DP / USB-C]), more displays support via discrete graphics

Chipset

Chipset

Intel Q470 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-2933

Memory Slots

Four DDR4 DIMM slots, dual-channel capable

Memory Type^{**}

- DDR4-2666
- DDR4-2933

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to four drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 2x M.2 SSD

- 2.5" HDD up to 1TB each
- 3.5" HDD up to 2TB each
- M.2 SSD up to 2TB each
- Optional Intel Optane™ Memory, M.2

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

RAID

RAID 0/1 support (RAID preset only available via special bid model)

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical**

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

Speakers

Single speaker, 1W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
180W	Fixed	85%	-
260W	Fixed	85%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
380W	Fixed	92%	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

SFF (8.2L)

Dimensions (WxDxH)

93 x 298 x 340 mm (3.6 x 11.7 x 13.4 inches)

Packaging Dimensions (WxDxH)

195 x 395 x 530 mm (7.68 x 15.55 x 20.87 inches)

Weight

Around 5.3 kg (11.7 lbs)

Packaging Weight

7.6 kg (16.76 lbs)

Case Color

Black

Bays

- 1x 2.5" disk bay (optional, or bay comes with disk)
- 1x 3.5" disk bay

- 1x slim ODD bay

Expansion Slots

- One PCIe 3.0 x1, low-profile (length < 155mm, height < 68mm)
- One PCIe 3.0 x4, low-profile (length < 155mm, height < 68mm)
- One PCIe 3.0 x16, low-profile (length < 155mm, height < 68mm)
- One dummy slot, only bracket for optional port extension
- Three M.2 slots (one for WLAN, two for SSD)

Stand

- Vertical stand
- No stand

Others

- (Optional) Dust filter
- Supports Smart Power On

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet**

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- 2.5 Gigabit Ethernet, Realtek RTL8125BGS, 1x RJ-45, PCIe x1
- No optional Ethernet

WLAN + Bluetooth®^[1]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

- 1x card reader
- None

Rear Ports^[2]

- 4x USB 3.2 Gen 1
- 2x DisplayPort
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports***

- 2x USB 2.0 (via 2-port adapter)
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- Optional video port (one of HDMI / DisplayPort / USB-C 3.2 Gen 1 with DisplayPort function)
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel

- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^{[1][2]}

- Intel vPro with Intel AMT 14.0
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection

SERVICE

Warranty

Base Warranty**^[1]

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications^[1]

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant

Notes:

1. ENERGY STAR 8.0 and EPEAT are only available for MT 11D1/11D2

Other Certifications

Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

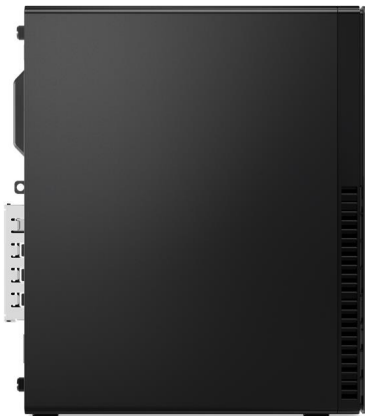
Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

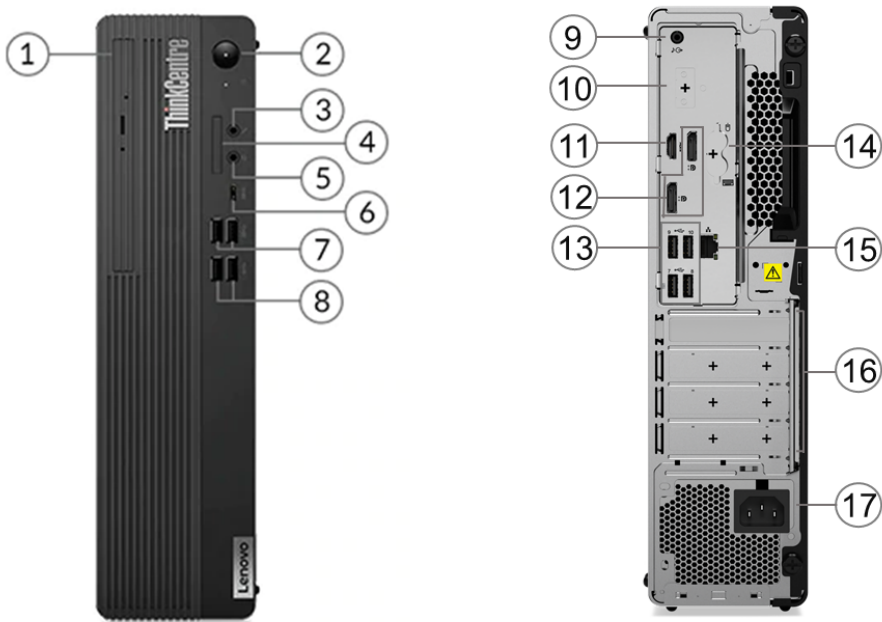
- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Optical drive *	10. Flex IO *
2. Power button	11. HDMI 2.1 TMDS
3. Microphone (3.5mm)	12. 2x DisplayPort 1.4
4. Card reader *	13. 4x USB 3.2 Gen 1
5. Headphone / microphone combo jack (3.5mm)	14. 2x PS/2 ports (keyboard / mouse) *
6. USB-C 3.2 Gen 2	15. Ethernet (RJ-45)
7. 2x USB 3.2 Gen 1	16. Optional ports on expansion cards *
8. 2x USB 3.2 Gen 2	17. Power connector
9. Line-out (3.5mm)	

- Notes:
- Ports with * are only available on selected models
 - More ports are available through the optional expansion cards (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

Intel® Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Pentium Gold G7400	2	4	3.7GHz	-	6MB	Intel UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	Intel UHD Graphics 730
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	Intel UHD Graphics 770
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	Intel UHD Graphics 730
Core i5-12400F	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	-
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	Intel UHD Graphics 770
Core i5-12600K	10 (6 P-core + 4 E-core)	16	P-core 3.7GHz / E-core 2.8GHz	P-core 4.9GHz / E-core 3.6GHz	20MB	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	Intel UHD Graphics 770
Core i7-12700F	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	-
Core i7-12700K	12 (8 P-core + 4 E-core)	20	P-core 3.6GHz / E-core 2.7GHz	P-core 4.9GHz / E-core 3.8GHz	25MB	Intel UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	Intel UHD Graphics 770
Core i9-12900F	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	-
Core i9-12900K	16 (8 P-core + 8 E-core)	24	P-core 3.2GHz / E-core 2.4GHz	P-core 5.1GHz / E-core 3.9GHz	30MB	Intel UHD Graphics 770

Operating System

Operating System

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 IoT Enterprise LTSC 2021
- Ubuntu Linux
- No operating system

Graphics

Graphics^[1]

Graphics	Type	Memory	Boost Clock	TGP	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 710	Integrated	Shared	-	-	2x DP 1.4 HBR2, 1x HDMI® 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 /	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)],	DirectX® 12	-

					HDMI 2.1 TMDS / USB-C®)	2048x1536@50Hz[Flex IO(VGA)]		
Intel UHD graphics 730	Integrated	Shared	-	-	2x DP 1.4 HBR2, 1x HDMI 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX 12	-
Intel UHD graphics 770	Integrated	Shared	-	-	2x DP 1.4 HBR2, 1x HDMI 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX 12	-
AMD Radeon™ RX 6400	Discrete	4GB GDDR6	-	-	1x HDMI 2.1, 1x DP 1.4	7680x4320@60Hz(HDMI), 7680x4320@60Hz(DP)	DirectX 12, OpenGL 4.6	-

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays via onboard ports (2x DP, 1x HDMI, and 1x optional Flex IO), more displays support via discrete graphics

Notes:

1. Onboard video ports are only available for the models with integrated graphics

Chipset

Chipset

Intel Q670 chipset

Memory

Max Memory^[1]

Up to 128GB DDR5

Memory Slots

Four DDR5 UDIMM slots, dual-channel capable

Memory Type^[2]

- DDR5-3600
- DDR5-4000
- DDR5-4400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

2. Installed memory is actually 4800MHz, but may run at 3600MHz, 4000MHz, or 4400MHz depending on the memory support capability of processor

Storage

Storage Support^{[1][2]}

Up to four drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 2x M.2 SSD

- 2.5" HDD up to 1TB
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB each

Storage Type

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	-	Opal2

RAID

RAID 0/1 support (RAID preset only available via special bid model)

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
- 2. The max capacity of SSD/HDD is based on the test results with current Lenovo SSD/HDD offerings. The system may support more capacity as the technology develops.

Removable Storage

Optical

- DVD-ROM, SATA connector, slim (9.0mm)
- DVD burner (DVD±RW), SATA connector, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC897Q-CG codec

Speakers

Single speaker, 1W x1

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
260W	Fixed	90%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
380W	Fixed	92%	100-240V, 50-60Hz

DESIGN

Input Device

Keyboard

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Keyboard (PS/2 connector), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Mouse (PS/2 connector), black (only available via special bid)
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

SFF (8.2L)

Dimensions (WxDxH)

92.5 x 297.7 x 339.5 mm (3.6 x 11.7 x 13.4 inches)

Packaging Dimensions (WxDxH)

195 x 530 x 530 mm (7.68 x 15.55 x 20.87 inches)

Weight

Around 5.3 kg (11.7 lbs)

Packaging Weight

7.6 kg (16.76 lbs)

Case Color

Black

Bays^[1]

- 1x 2.5" disk bay
- 1x 3.5" disk bay
- 1x slim ODD bay

Expansion Slots

- One PCIe 4.0 x16, low-profile, length ≤ 155mm, height ≤ 70mm
- One PCIe 4.0 x16 (x4 signal), low-profile, length ≤ 155mm, height ≤ 70mm
- Two PCIe 3.0 x1, low-profile, length ≤ 155mm, height ≤ 70mm
- Three M.2 slots (one for WLAN, two for SSD)

EOU

Toolless cover, disk, optical, extension card assembly / removal

Stand

- Vertical stand
- No stand

Others

- (Optional) Dust filter
- (Optional) Smart Cable (USB-A to USB-C)
- Supports Smart Power On

Notes:

1. 2.5" HDD tray is optional, or comes with 2.5 HDD. 3.5" bay supports 2.5" / 3.5" HDD, 3.5" to 2.5 converter comes with 2nd 2.5" HDD.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- No optional Ethernet

WLAN + Bluetooth^[1]

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB-C 3.2 Gen 2 (support data transfer and 15W charging)
- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

1x card reader

Rear Ports^[2]

- 4x USB 3.2 Gen 1
- 1x HDMI 2.1 TMDS
- 2x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports

- 1x USB-C 3.2 Gen 1 with DisplayPort function and 5V@3A charging (Flex IO)
- 1x HDMI 2.1 TMDS (Flex IO)
- 1x VGA (Flex IO)
- 1x DP 1.2 (Flex IO)
- 1x USB-C 3.2 Gen 2x2 (via USB-C expansion card, PCIe x4)
- 2x USB 2.0 (via 2-port adapter)
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- 1x serial
- 1x 2nd serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2
- None

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI dongle
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip

- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS (Level 2)
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Enterprise
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Other Certifications

(Optional) TÜV Rheinland® Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation, Contamination by Fluids, Salt Fog)

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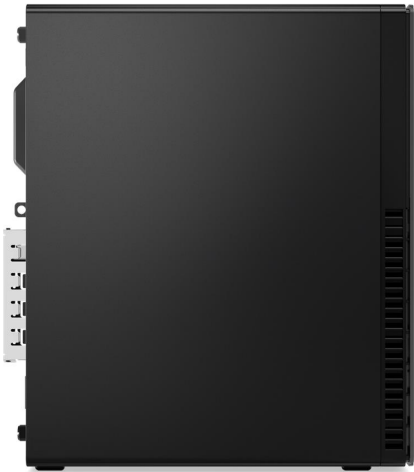
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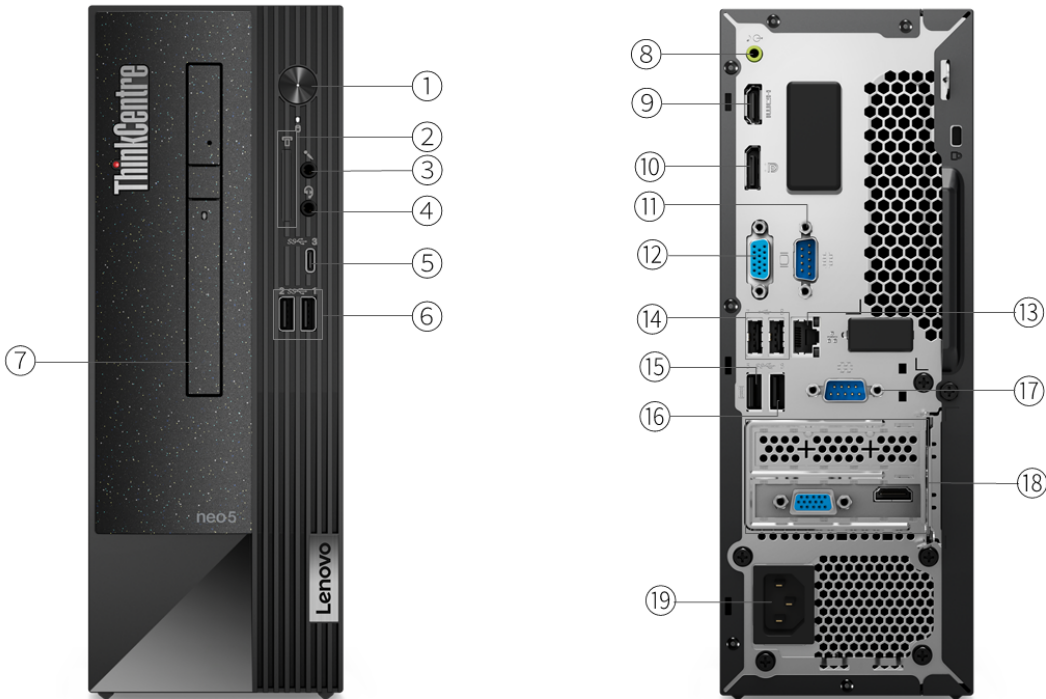


intel



intel

OVERVIEW



1. Power button	11. Serial *
2. Card reader *	12. VGA
3. Microphone (3.5mm)	13. Ethernet (RJ-45)
4. Headphone / microphone combo jack (3.5mm)	14. 2x USB 2.0
5. USB-C 3.2 Gen 1 (support data transfer and 5V@3A charging)	15. USB 3.2 Gen 1 (with Smart Power On feature)
6. 2x USB 3.2 Gen 1	16. USB 3.2 Gen 1
7. Optical drive *	17. Serial *
8. Line-out (3.5mm)	18. Optional ports on expansion cards *
9. HDMI	19. Power connector
10. DisplayPort 1.4	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G6900	2	2	3.4GHz	-	4MB	DDR4-3200	Intel UHD Graphics 710
Pentium Gold G7400	2	4	3.7GHz	-	6MB	DDR4-3200	Intel UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR4-3200	Intel UHD Graphics 730
Core i5-12400F	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR4-3200	-
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR4-3200	Intel UHD Graphics 770
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	DDR4-3200	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	DDR4-3200	Intel UHD Graphics 770
Core i7-12700F	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	DDR4-3200	-
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR4-3200	Intel UHD Graphics 770
Core i9-12900F	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR4-3200	-

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics***[]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 710	Integrated	Shared	1x HDMI® 2.1 TMDS, 1x VGA, 1x DP 1.4	3840x2160@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2304@60Hz(DP)	DirectX® 12
Intel UHD graphics 730	Integrated	Shared	1x HDMI 2.1 TMDS, 1x VGA, 1x DP 1.4	3840x2160@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2304@60Hz(DP)	DirectX 12
Intel UHD graphics 770	Integrated	Shared	1x HDMI 2.1 TMDS, 1x VGA, 1x DP 1.4	3840x2160@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2304@60Hz(DP)	DirectX 12

Intel Iris® Xe MAX 100 Graphics	Discrete	2GB LPDDR4X	1x VGA, 1x HDMI 1.4	3840x2160@30Hz(HDMI), 1920x1080@60Hz(VGA)	DirectX 12, OpenGL 4.6
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Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via (HDMI, DP and VGA)

Chipset

Chipset

Intel B660 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 UDIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 1x 2.5"/3.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB
- 3.5" HDD up to 2TB
- M.2 SSD up to 1TB

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	-	Opal2

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical^{**}

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

ThinkCentre neo 50s

- 7-in-1 card reader (SD, SDHC, SDXC, MMC, MS, MS-Pro, XD)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

Speakers

- Single speaker, 1W x1
- No speakers

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
180W	Fixed	85%	Autosensing
260W	Fixed	90%	100-240V, 50-60Hz

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard, black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- No mouse

Mechanical

Form Factor

SFF (7.4L)

Dimensions (WxDxH)

100 x 308 x 274.8 mm (3.9 x 12.1 x 10.8 inches)

Packaging Dimensions (WxDxH)

195 x 390 x 500 mm (7.67 x 15.35 x 19.69 inches)

Weight

Around 4.5 kg (9.9 lbs)

Packaging Weight

All models: 6.35 kg (14.0 lbs)

Case Color

Raven black

Bays

- 1x 2.5"/3.5" disk bay
- 1x slim ODD bay

Expansion Slots

- One PCIe 3.0 x1, low-profile (length < 167.65mm, height < 68.90mm)
- One PCIe 4.0 x16, low-profile (length < 167.65mm, height < 68.90mm)
- Two M.2 slots (one for WLAN, one for SSD)

EOU

No support

Stand

- Vertical stand
- No stand

IO Box

No IO box

Mounting

None

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111HN, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth[®]^[1]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi[®] + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 1x USB-C[®] 3.2 Gen 1 (support data transfer and 5V@3A charging)
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

1x card reader

Rear Ports^[2]

- 2x USB 2.0
- 2x USB 3.2 Gen 1 (one supports Smart Power On)
- 1x VGA
- 1x HDMI 2.1 TMDS
- 1x DisplayPort[™] 1.4
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports^{}**

- 2x USB 2.0 (via 2-port adapter)
- 1x serial
- 1x 2nd serial
- 1x parallel

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt[™] 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable^{*}**

- HDMI to HDMI cable
- HDMI to VGA dongle

- DP 1.2 to dual DP 1.2 dongle
- DP 1.2 to DVI-D dongle
- DP 1.2 to HDMI 1.4 dongle
- DP 1.2 to VGA dongle

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

No fingerprint reader

BIOS Security

- Secure Wipe
- Power-on password
- Supervisor password
- Hard disk password
- Computrace support
- Cover presence switch
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

Non-vPro

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS**Green Certifications****Green Certifications**

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications**Other Certifications**

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

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- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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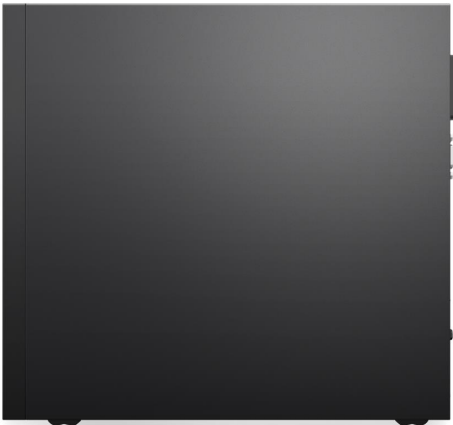
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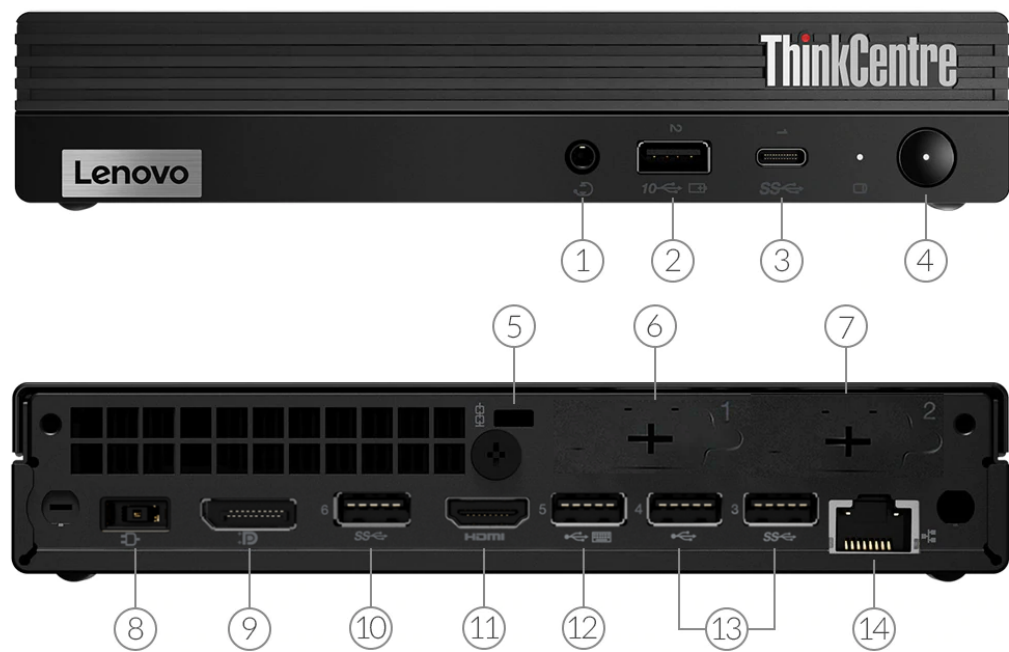


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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	8. Power connector
2. USB 3.2 Gen 2	9. DisplayPort
3. USB-C 3.2 Gen 1	10. USB 3.2 Gen 1
4. Power button	11. HDMI
5. Kensington Security Slot	12. USB 2.0
6. Dummy port (no function) *	13. 1x USB 2.0 + 1x USB 3.2 Gen 1
7. Dummy port (no function) *	14. Ethernet (RJ-45)

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i3 / i5 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1005G1	2	4	1.2GHz	3.4GHz	4MB	DDR4-3200	Intel UHD Graphics
Core i5-1035G1	4	8	1.0GHz	3.6GHz	6MB	DDR4-3200	Intel UHD Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Ubuntu Linux

Graphics

Graphics^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics	Integrated	Shared	1x HDMI®, 1x DP	4096x2304@24Hz(HDMI), 4096x2304@60Hz(DP)	DirectX® 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 2 independent displays via onboard ports (DisplayPort™ and HDMI)

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 32GB DDR4-2666

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-2666

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 2TB
- M.2 SSD up to 512GB

Storage Type***

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	-
M.2 2242 SSD	PCIe® NVMe®	-	-
M.2 2280 SSD	PCIe NVMe	-	Opal

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Multi-Media

Audio Chip

High Definition (HD) Audio

Speakers

- Single speaker
- No speakers

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
65W	Adapter	89%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- USB Traditional Keyboard, black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- USB Calliope Mouse, black
- No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

179 x 182.9 x 36.5 mm (7.05 x 7.20 x 1.4 inches)

Weight

Around 1.25 kg (2.76 lbs)

Case Color

Black

Expansion Slots

- One M.2 slot (for WLAN)
- One M.2 slot (for SSD)

EOU

- (Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal
- No support

Stand

- Vertical stand
- No stand

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, 1x RJ-45

WLAN + Bluetooth®^[1]**

- Realtek® RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)

Rear Ports^[2]

- 2x USB 2.0
- 2x USB 3.2 Gen 1
- 1x HDMI
- 1x DisplayPort
- 1x Ethernet (RJ-45)

Optional Rear Ports

1x parallel (external USB to parallel dongle)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

No chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password

- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

Non-vPro

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

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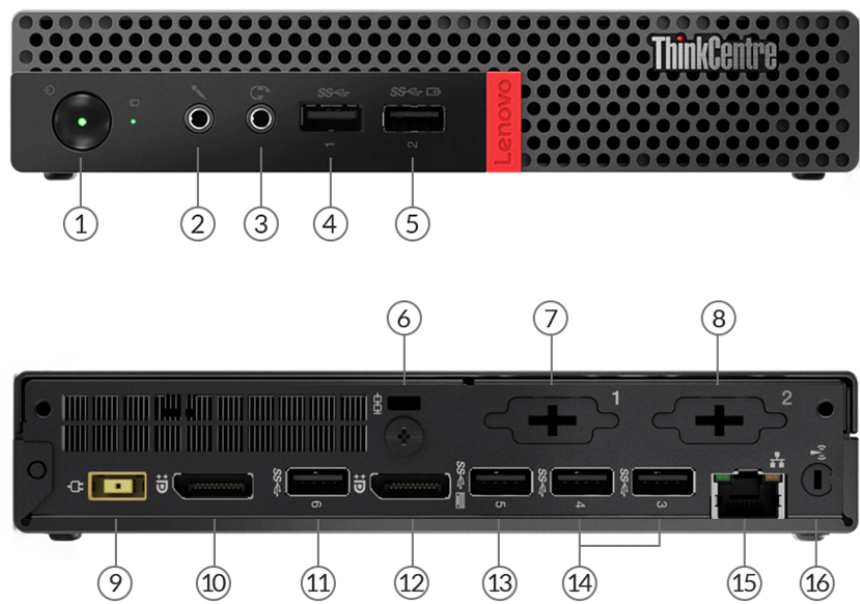


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OVERVIEW



1. Power button	9. Power connector
2. Microphone (3.5mm)	10. DisplayPort
3. Headphone / microphone combo jack (3.5mm)	11. USB 3.1 Gen 1
4. USB 3.1 Gen 1	12. DisplayPort
5. USB 3.1 Gen 1	13. USB 2.0
6. Kensington Security Slot	14. 2x USB 2.0
7. Optional port 1 *	15. Ethernet (RJ-45)
8. Optional port 2 *	16. Wi-Fi antenna slot

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

AMD E2 / A4 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD E2-9000e	2	2	1.5GHz	2.0GHz	1MB L2	DDR4-1866	AMD Radeon™ R2 Graphics
AMD A4-9120e	2	2	1.5GHz	2.2GHz	1MB L2	DDR4-1866	AMD Radeon R3 Graphics
AMD A4-9120C	2	2	1.6GHz	2.4GHz	1MB L2	DDR4-1866	AMD Radeon R4 Graphics

Operating System

Operating System**

- Windows® 10 IoT Enterprise
- Windows 10 IoT Enterprise (Thin Client)
- Windows Embedded Standard 7 V2 (WES 7 V2)
- LeTOS V2 (Lenovo® Terminal Operating System, Linux-based)

Graphics

Graphics*[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
AMD Radeon R2 Graphics	Integrated	Shared	2x DisplayPort™, 1x optional port (VGA)	3840x2160@60Hz(DP), 2048x1280@60Hz(VGA)	DirectX® 12
AMD Radeon R3 Graphics	Integrated	Shared	2x DisplayPort, 1x optional port (VGA)	3840x2160@60Hz(DP), 2048x1280@60Hz(VGA)	DirectX 12
AMD Radeon R4 Graphics	Integrated	Shared	2x DisplayPort, 1x optional port (VGA)	3840x2160@60Hz(DP), 2048x1280@60Hz(VGA)	DirectX 12

Notes:

- The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 2 independent displays via onboard ports (2x DisplayPort and 1x optional port [VGA])

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory[1]

Up to 8GB DDR4-2666

Memory Slots

One DDR4 SO-DIMM slot

Memory Type[2]

DDR4-2666

Notes:

- The max memory is based on the test results with current Lenovo memory offerings. The system may support more memory as the technology develops.
- Installed memory is actually 2666MHz, but run at 1866 due to the memory support capability of processor

Storage

Storage Support^[1]

One drive, up to 128GB M.2 2242 SSD

Storage Type**

Disk Type	Interface	RPM	Security
M.2 2242 SSD	SATA 6Gb/s	-	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233-VB2-CG codec

Speakers

Single speaker, 1.5W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
65W	Adapter	88%	Autosensing
135W	Adapter	89%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard

- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse

Lenovo Calliope Mouse (USB connector), black

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

179 x 182.9 x 34.5 mm (7.05 x 7.20 x 1.36 inches)

Weight^[1]

Around 1.3 kg (2.87 lbs)

Case Color

ThinkCentre M625 Tiny Thin Client

Black

Bays

No bays

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

(Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal

Stand

- Vertical stand
- No stand

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

Others

(Optional) Power adapter cage

Notes:

1. Weight may vary by configuration.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111HN, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth^{[1][2]}

- Realtek RTL8821CE, 802.11ac Dual Band 1x1 Wi-Fi® + Bluetooth 4.2, M.2 card
- Realtek RTL8822BE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Qualcomm® QCA6174A, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Qualcomm QCA9377, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 4.2, M.2 card
- Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Win 10 RS3 and Win10 earlier version only support Bluetooth 4.1

Ports^[1]

Front Ports

- 2x USB 3.1 Gen 1 (one supports Always On and fast charge)
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 3x USB 2.0
- 1x USB 3.1 Gen 1
- 2x DisplayPort
- 1x Ethernet (RJ-45)

Optional Rear Ports^{***}

- Optional port 1 (one of VGA / serial)
- Optional port 2 (serial)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- VGA Cable Tiny
- DP to DVI-D dongle
- DP to HDMI® 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

Non-DASH

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications^[1]

- (Optional) EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified
- RoHS compliant
- WEEE

Notes:

1. EnergyStar and EPEAT are not for non-OS models

Other Certifications

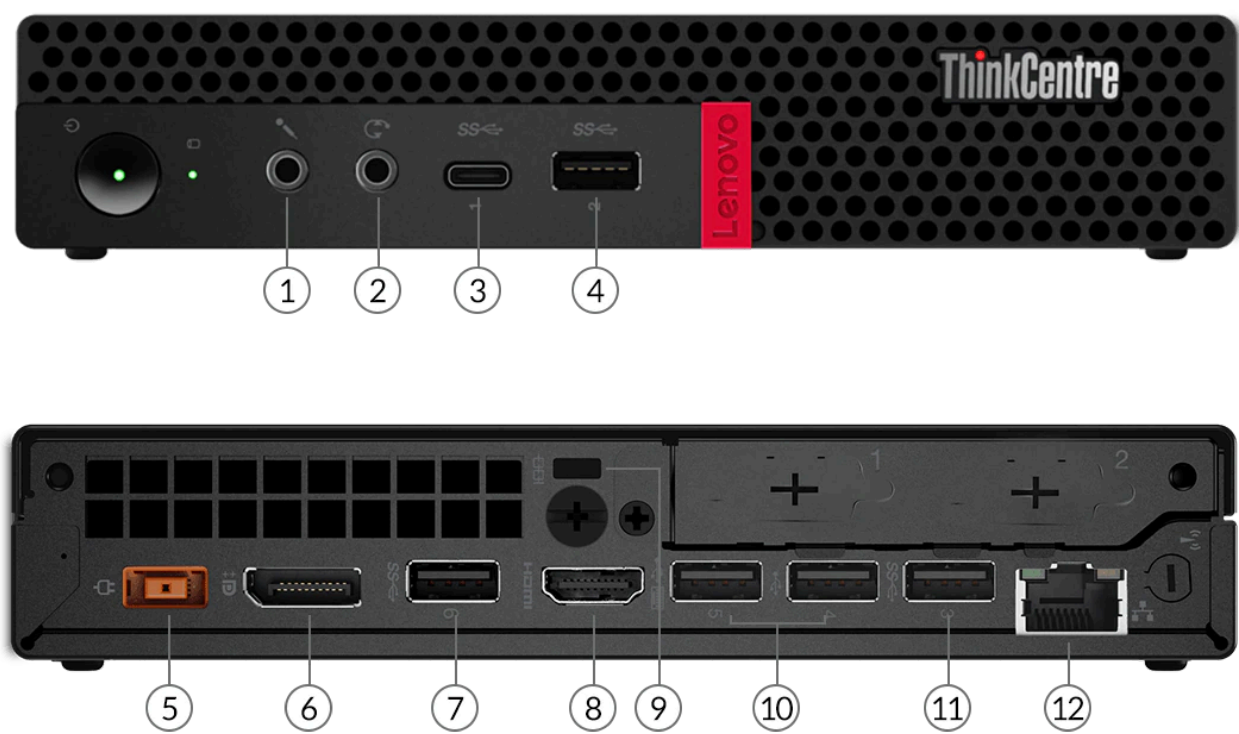
Mil-Spec Test

MIL-STD-810G military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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OVERVIEW



1. Microphone (3.5mm)	7. USB 3.1 Gen 1
2. Headphone / microphone combo jack (3.5mm)	8. HDMI
3. USB-C 3.1 Gen 1	9. Kensington Security Slot
4. USB 3.1 Gen 1	10. 2x USB 2.0
5. Power connector	11. USB 3.1 Gen 1
6. DisplayPort	12. Ethernet (RJ-45)

PERFORMANCE

Processor

Processor Family

Intel® Pentium® or 8th Generation Intel Core™ i3 / i5 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Pentium Gold 5405U	2	4	2.3GHz	-	2MB	DDR4-2133	Intel UHD Graphics
Core i3-8145U	2	4	2.1GHz	3.9GHz	4MB	DDR4-2400	Intel UHD Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Home 64
- Ubuntu Linux
- No operating system

Graphics

Graphics^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics	Integrated	Shared	1x HDMI®, 1x DP	4096x2304@24Hz(HDMI), 4096x2304@60Hz(DP)	DirectX® 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 2 independent displays via onboard ports (DisplayPort™ and HDMI)

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 16GB DDR4-2666

Memory Slots

One DDR4 SO-DIMM slot

Memory Type^[2]

DDR4-2666

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. System automatically clocks down for the processors with lower memory controller

Storage

Storage Support^[1]

Up to two drives, 1x 2.5" HDD/SSD + 1x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 SSD up to 512GB

Storage Type***

Disk Type	Interface	RPM	Security
2.5" SATA SSD	SATA 6Gb/s	-	-
2.5" SATA HDD	SATA 6Gb/s	5.4K	-
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233VB codec

Speakers

Single speaker, 1.5W x1

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
65W	Adapter	88%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Traditional Keyboard (USB connector), black

Mouse

- Lenovo Calliope Mouse (USB connector), black
- No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

179 x 183 x 34.5 / 37 mm with rubber feet (7.05 x 7.2 x 1.36 / 1.5 inches with rubber feet)

Weight

Around 1.32 kg (2.91 lbs)

Case Color

Black

Bays

1x 2.5" disk bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

No support

Stand

- Vertical stand
- No stand

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

Others

- (Optional) Dust filter
- (Optional) Power adapter cage

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111HN-CG, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth[®]*^[1]

- Realtek RTL8821CE, 802.11ac Dual Band 1x1 Wi-Fi[®] + Bluetooth 4.2, M.2 card
- Realtek RTL8822BE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Intel Dual Band Wireless-AC 3165, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 4.2, M.2 Card
- Intel Dual Band Wireless-AC 8265, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 Card
- No WLAN and Bluetooth

WWAN

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.1 Gen 1
- 1x USB-C[®] 3.1 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 2x USB 2.0
- 2x USB 3.1 Gen 1
- 1x HDMI
- 1x DisplayPort
- 1x Ethernet (RJ-45)

Optional Rear Ports

1x parallel (external USB to parallel dongle)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file

attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;

USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;

USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;

USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;

Thunderbolt™ 3/4: 40 Gbit/s

2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable**

- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

Non-DASH

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified
- RoHS compliant
- REACH
- WEEE

Other Certifications

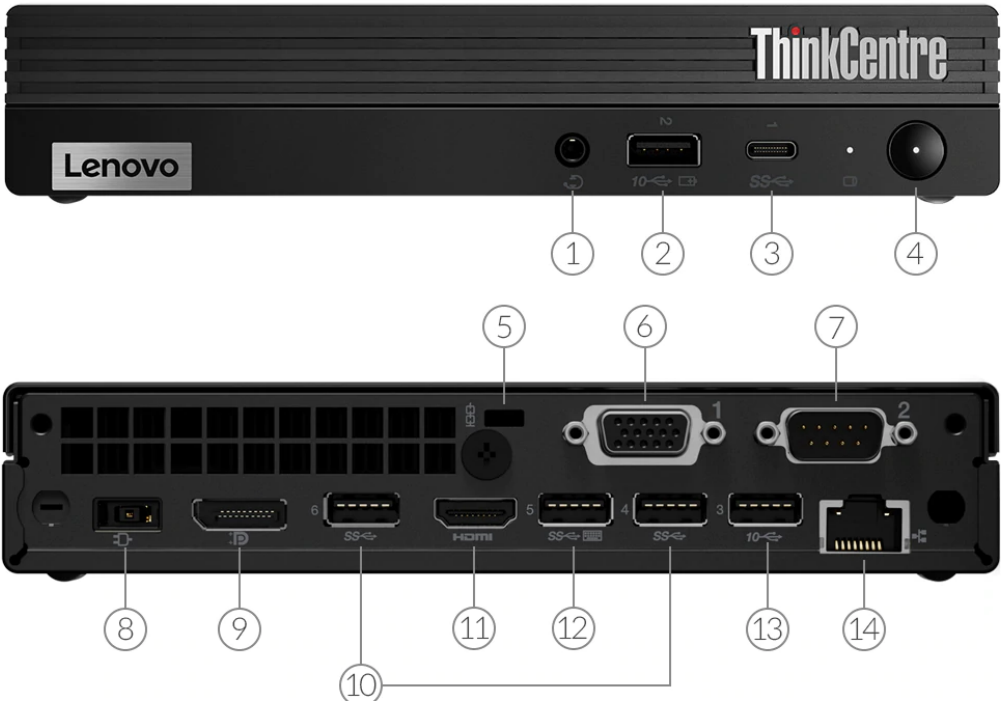
Mil-Spec Test

MIL-STD-810G military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	8. Power connector
2. USB 3.2 Gen 2	9. DisplayPort
3. USB-C 3.2 Gen 1	10. USB 3.2 Gen 1
4. Power button	11. HDMI
5. Kensington Security Slot	12. USB 3.2 Gen 1
6. Optional port 1 (VGA is shown)	13. USB 3.2 Gen 2
7. Optional port 2 (serial is shown)	14. Ethernet (RJ-45)

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 10th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5900T	2	2	3.2GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5905T	2	2	3.3GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6400T	2	4	3.4GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6500T	2	4	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100T	4	8	3.0GHz	3.8GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300T	4	8	3.0GHz	3.9GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400T	6	12	2.0GHz	3.6GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500T	6	12	2.3GHz	3.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600T	6	12	2.4GHz	4.0GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700T	8	16	2.0GHz	4.5GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900T	10	20	1.9GHz	4.6GHz	20MB	DDR4-2933	Intel UHD Graphics 630

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	1x HDMI®, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C® / dual DP)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x HDMI, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C / dual DP)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via (onboard DP, onboard HDMI, and one optional port [VGA / 2nd DP / 2nd HDMI / USB-C]) or (one onboard port [DP / HDMI] and optional dual DP [MST mode])

Chipset

Chipset

Intel H470 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-2933

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type^{**[2]}

- DDR4-2666
- DDR4-2933

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. Installed memory is actually 3200MHz, but may run at 2666MHz or 2933MHz, depending on the memory support capability of processor

Storage

Storage Support^[1]

Up to two drives, 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 SSD up to 2TB
- Optional Intel Optane™ Memory, M.2

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical^{**}

- DVD-ROM, slim (9.0mm), via USB external ODD box
- DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
- None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233VB codec or ALC897Q codec

Speakers

Single speaker, 1.5W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
65W	Adapter	89%	Autosensing
90W	Adapter	89%	Autosensing
135W	Adapter	89%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 183 x 34.5 / 37 mm with rubber feet (7.05 x 7.2 x 1.36 / 1.5 inches with rubber feet)
With VESA mount & ODD box	187 x 183.8 x 66.5 mm (7.36 x 7.24 x 2.62 inches)

Weight

Models	Weight
Tiny only	Around 1.25 kg (2.76 lbs)
With VESA mount & ODD box	Around 1.74 kg (3.84 lbs)

Case Color

Black

Bays

1x 2.5" disk bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

(Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal

Stand

- Vertical stand
- No stand

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

Others

- (Optional) Dust filter
- (Optional) Power adapter cage

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Intel Ethernet Connection I219-V, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth[®]^[1]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi[®] + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9462, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Front Ports**

- 1x USB 3.2 Gen 2 (Always On and fast charge)
- 1x USB-C 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 3x USB 3.2 Gen 1
- 1x USB 3.2 Gen 2
- 1x HDMI
- 1x DisplayPort™
- 1x Ethernet (RJ-45)

Optional Rear Ports^{*}**

- 2x USB 3.2 Gen 1 ports (share one USB 3.2 Gen 1 bandwidth, occupy optional port 1 and 2)
- 2x DisplayPort ports (occupy Optional port 1 and 2)
- Optional port 1 (one of VGA / 2nd DisplayPort / 2nd HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort function)
- Optional port 2 (serial)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable^{***}**

- DP to dual DP dongle
- DP to DVI-D dongle

- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

Non-vPro

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS**Green Certifications****Green Certifications**

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant

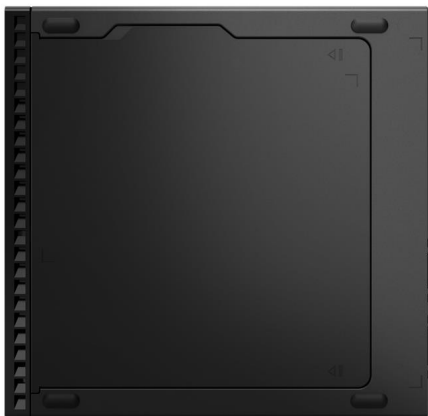
Other Certifications**Other Certifications**

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

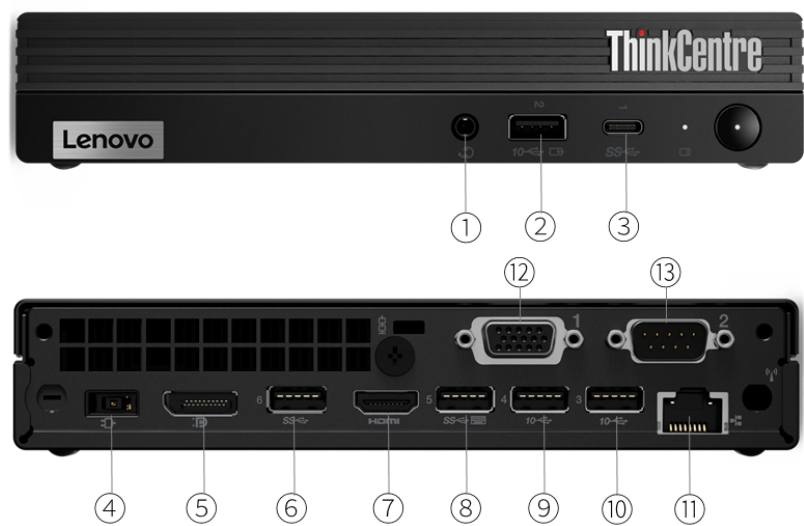
Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	8. USB 3.2 Gen 1
2. USB 3.2 Gen 2	9. USB 3.2 Gen 2
3. USB-C 3.2 Gen 1	10. USB 3.2 Gen 2
4. Power connector	11. Ethernet (RJ-45)
5. DisplayPort	12. Optional port 1 (VGA is shown) *
6. USB 3.2 Gen 1	13. Optional port 2 (serial is shown) *
7. HDMI	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, 10th Generation Intel Core™ i3, or 11th Generation Intel Core i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5905T	2	2	3.3GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6405T	2	4	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6505T	2	4	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10105T	4	8	3.0GHz	3.9GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10305T	4	8	3.0GHz	4.0GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400T	6	12	2.0GHz	3.6GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500T	6	12	2.3GHz	3.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-11400T	6	12	1.3GHz	3.7GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-11500T	6	12	1.5GHz	3.9GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11600T	6	12	1.7GHz	4.1GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i7-11700T	8	16	1.4GHz	4.6GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-11900T	8	16	1.5GHz	4.9GHz	16MB	DDR4-3200	Intel UHD Graphics 750

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	1x HDMI®, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C® / dual DP)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x HDMI, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP /	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA),	DirectX 12

			USB-C / dual DP)	4096x2304@60Hz(USB-C)	
Intel UHD Graphics 730	Integrated	Shared	1x HDMI, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C / dual DP)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX 12
Intel UHD Graphics 750	Integrated	Shared	1x HDMI, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C / dual DP)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via (onboard DP, onboard HDMI, and one optional port [VGA / 2nd DP / 2nd HDMI / USB-C]) or (one onboard port [DP / HDMI] and optional dual DP [MST mode])

Chipset

Chipset

Intel B560 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-2933

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type^{**}

- DDR4-2666
- DDR4-2933
- DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 SSD up to 2TB

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®	-	-
M.2 2280 SSD	PCIe NVMe	-	Opal

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical**

- DVD-ROM, slim (9.0mm), via USB external ODD box
- DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
- None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233VB codec

Speakers

Single speaker, 1.5W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
65W	Adapter	89%	Autosensing
135W	Adapter	89%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard, black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), black
- No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 182.9 x 36.5 mm with rubber feet (7.05 x 7.2 x 1.44 inches with rubber feet)
With VESA mount & ODD box	186.6 x 204.2 x 64 mm (7.33 x 8.04 x 2.52 inches)

Weight

Models	Weight
Tiny only	Around 1.25 kg (2.76 lbs)
With VESA mount & ODD box	Around 1.74 kg (3.84 lbs)

Case Color

Black

Bays

1x 2.5" disk bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

(Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal

Stand

- Vertical stand
- No stand

IO Box

No IO box

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

Others

- (Optional) Dust filter
- (Optional) Power adapter cage

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-V, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®**^[1]

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.2 Gen 2 (Always On and fast charge)
- 1x USB-C 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x HDMI
- 1x DisplayPort™
- 1x Ethernet (RJ-45)

Optional Rear Ports***

- 2x USB 3.2 Gen 1 ports (share one USB 3.2 Gen 1 bandwidth, occupy optional port 1 and 2)
- 2x DisplayPort ports (occupy Optional port 1 and 2)
- Optional port 1 (one of VGA / 2nd DisplayPort / 2nd HDMI / serial / USB-C 2.0 with DisplayPort function)
- Optional port 2 (serial)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;

USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- Dual DP to DVI
- Dual DP to HDMI
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

Non-vPro

SERVICE

Warranty

Base Warranty**[]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Other Certifications

(Optional) TÜV Rheinland® Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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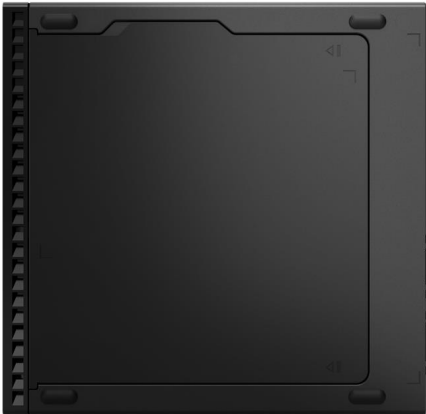
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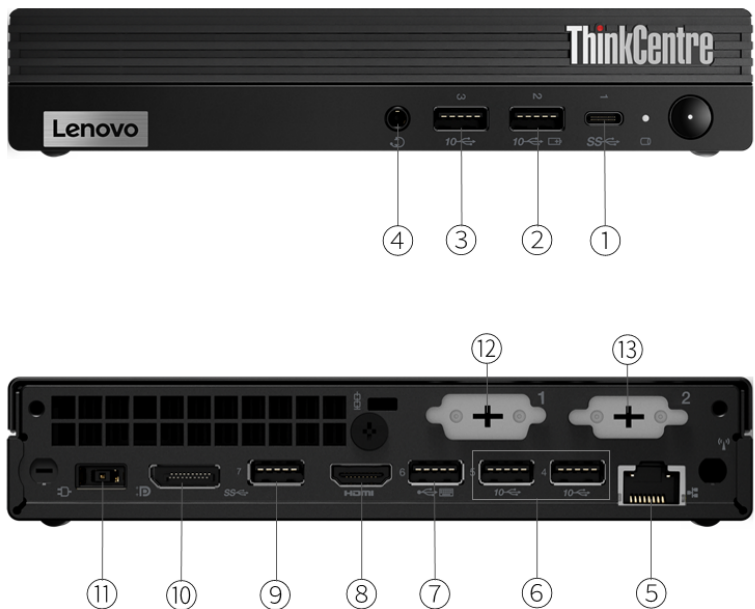


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OVERVIEW



1. USB-C 3.2 Gen 1	8. HDMI 2.1 TMDS
2. USB 3.2 Gen 2 (Always On and fast charge)	9. USB 3.2 Gen 1
3. USB 3.2 Gen 2	10. DisplayPort 1.4
4. Headphone / microphone combo jack (3.5mm)	11. Power connector
5. Ethernet (RJ-45)	12. Punch out port 1 *
6. 2x USB 3.2 Gen 2	13. Punch out port 2 *
7. 1x USB 2.0 (with smart power-on feature)	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G6900T	2	2	2.8GHz	-	4MB	DDR4-3200	Intel UHD Graphics 710
Pentium Gold G7400T	2	4	3.1GHz	-	6MB	DDR4-3200	Intel UHD Graphics 710
Core i3-12100T	4 (4 P-core + 0 E-core)	8	P-core 2.2GHz	P-core 4.1GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i3-12300T	4 (4 P-core + 0 E-core)	8	P-core 2.3GHz	P-core 4.2GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-12400T	6 (6 P-core + 0 E-core)	12	P-core 1.8GHz	P-core 4.2GHz	18MB	DDR4-3200	Intel UHD Graphics 730
Core i5-12500T	6 (6 P-core + 0 E-core)	12	P-core 2.0GHz	P-core 4.4GHz	18MB	DDR4-3200	Intel UHD Graphics 770
Core i5-12600T	6 (6 P-core + 0 E-core)	12	P-core 2.1GHz	P-core 4.6GHz	18MB	DDR4-3200	Intel UHD Graphics 770
Core i7-12700T	12 (8 P-core + 4 E-core)	20	P-core 1.4GHz / E-core 1.0GHz	P-core 4.6GHz / E-core 3.4GHz	25MB	DDR4-3200	Intel UHD Graphics 770
Core i9-12900T	16 (8 P-core + 8 E-core)	24	P-core 1.4GHz / E-core 1.0GHz	P-core 4.8GHz / E-core 3.6GHz	30MB	DDR4-3200	Intel UHD Graphics 770

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Home 64
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 710	Integrated	Shared	1x HDMI® 2.1 TMDS, 1x DP 1.4, 2x punch out ports([2x HDMI/VGA/DP] or [USB-C® with DP function, HDMI/VGA/DP])	4096x2160@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2160@60Hz(DP), 4096x2160@60Hz(USB-C with DP function)	DirectX® 12
Intel UHD graphics 730	Integrated	Shared	1x HDMI 2.1 TMDS, 1x DP 1.4, 2x punch out ports([2x HDMI/VGA/DP] or [USB-C with DP function, HDMI/VGA/DP])	4096x2160@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2160@60Hz(DP), 4096x2160@60Hz(USB-C with DP function)	DirectX 12
Intel UHD graphics 770	Integrated	Shared	1x DP 1.4, 1x HDMI 2.1 TMDS, 2x punch out ports([2x HDMI/VGA/DP] or [USB-C with DP function, HDMI/VGA/DP])	4096x2160@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2160@60Hz(DP), 4096x2160@60Hz(USB-C with DP function)	DirectX 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 4 independent displays via (onboard DP, onboard HDMI, punch out port 1 [VGA / HDMI / DP / USB-C], and punch out port 2 [VGA / HDMI / DP])

Chipset

Chipset

Intel Q670 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 SSD up to 2TB

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	-	Opal2

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical^{**}

- DVD-ROM, slim (9.0mm), via USB external ODD box
- DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
- None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC256VB codec

Speakers^{**}

- Single speaker, 2W x1
- Premium single speaker, 2W x1

Power Supply

Power Supply**[]

Power	Type	Efficiency	Key Features
65W	Adapter	89%	Autosensing
90W	Adapter	89%	Autosensing
135W	Adapter	89%	Autosensing
No power supply	-	-	-

- Notes:
1. The optional 90w adapter may increase performance scores when 12500T/12400T CPUs are installed.

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard, black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), black
- No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 182.9 x 36.5 mm with rubber feet (7.05 x 7.2 x 1.44 inches with rubber feet)
Tiny & ODD	204.2 x 186.6 x 64 mm with rubber feet (8.04 x 7.35 x 2.52 inches with rubber feet)

Packaging Dimensions (WxDxH)**

- Tiny only : 490 x 268 x 141 mm (19.29 x 10.55 x 5.55 inches)
- Tiny & ODD : 490 x 268 x 166 mm (19.29 x 10.55 x 6.54 inches)

Weight

Models	Weight
Tiny only	Around 1.25 kg (2.76 lbs)
With VESA mount & ODD box	Around 1.74 kg (3.84 lbs)

Packaging Weight**

- Tiny & ODD: 3.58 kg (7.89 lbs)
- Tiny only: 2.85 kg (6.28 lbs)

Case Color

Raven black

Bays

1x 2.5" disk bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

(Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal

Stand

- Vertical stand
- No stand

IO Box

No IO box

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

Others

- (Optional) Dust filter
- (Optional) Power adapter cage
- Supports Smart Power On

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet^[1]

- No optional Ethernet
- 2.5 Gigabit Ethernet, Realtek RTL8125BGS, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**^[2]

- Realtek RTL8822BE, 802.11ac Dual Band 1x1 Wi-Fi® + Bluetooth 5.2, M.2 card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Optional Ethernet card occupied puch out port 2
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.2 Gen 2
- 1x USB 3.2 Gen 2 (Always On and 5V@2.1A charging)
- 1x USB-C 3.2 Gen 1 (support data transfer and 5V@0.9A charging)
- 1x headphone / microphone combo jack (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 1x USB 2.0
- 1x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x HDMI 2.1 TMDS
- 1x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)

Optional Rear Ports**^[3]

- Punch out port 1 (one of VGA / DisplayPort / HDMI / serial / USB-C 2.0 with DisplayPort function)
- Punch out port 2 (one of VGA / DisplayPort / HDMI / serial / RJ-45)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file

attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;

USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;

USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;

USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;

Thunderbolt™ 3/4: 40 Gbit/s

2. For video ports on discrete graphics, please see graphics section

3. USB-C 3.2 Gen 1 only available for models with 135W adapters

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI dongle
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Certificate based BIOS management
- Cover presence switch
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Essentials
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3 and Lot 7
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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- The specifications on this page may not be available in all regions, and may be changed or updated without notice.





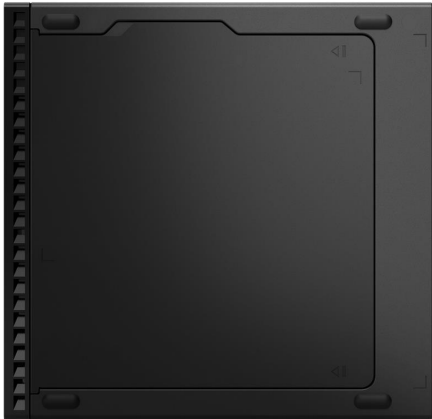
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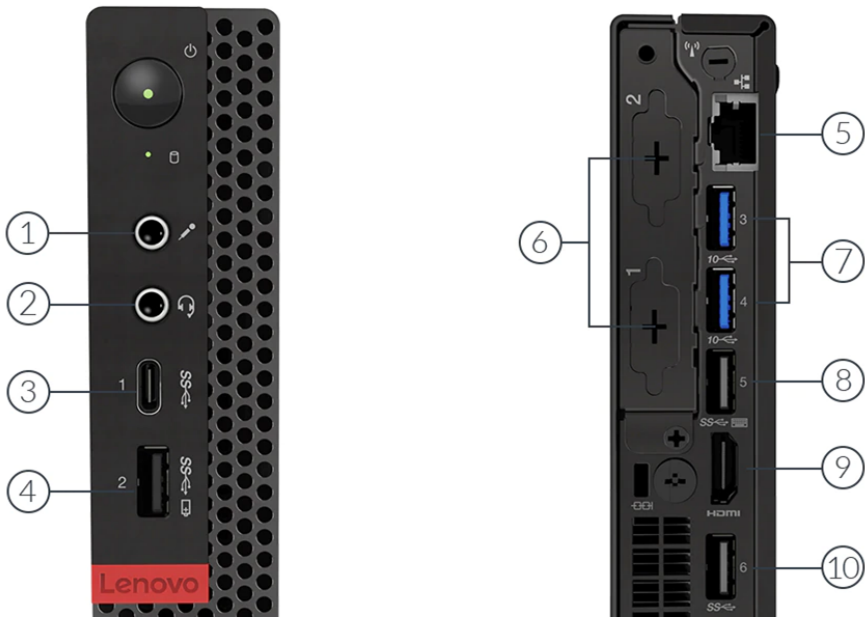


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OVERVIEW



1. Microphone (3.5mm)	6. Optional port 1 and 2 *
2. Headphone / microphone combo jack (3.5mm)	7. 2x USB 3.1 Gen 2
3. USB-C 3.1 Gen 1	8. USB 3.1 Gen 1
4. USB 3.1 Gen 1	9. HDMI
5. Ethernet (RJ-45)	10. USB 3.1 Gen 1

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, 8th Generation Intel Core™ i3 / i5 / i7, or 9th Generation Intel Core i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G4900T	2	2	2.9GHz	-	2MB	DDR4-2400	Intel UHD Graphics 610
Celeron G4930T	2	2	3.0GHz	-	2MB	DDR4-2400	Intel UHD Graphics 610
Pentium Gold G5400T	2	4	3.1GHz	-	4MB	DDR4-2400	Intel UHD Graphics 610
Pentium Gold G5420T	2	4	3.2GHz	-	4MB	DDR4-2400	Intel UHD Graphics 610
Pentium Gold G5500T	2	4	3.2GHz	-	4MB	DDR4-2400	Intel UHD Graphics 630
Pentium Gold G5600T	2	4	3.3GHz	-	4MB	DDR4-2400	Intel UHD Graphics 630
Core i3-8100T	4	4	3.1GHz	-	6MB	DDR4-2400	Intel UHD Graphics 630
Core i3-8300T	4	4	3.2GHz	-	8MB	DDR4-2400	Intel UHD Graphics 630
Core i3-9100T	4	4	3.1GHz	3.7GHz	6MB	DDR4-2400	Intel UHD Graphics 630
Core i3-9300T	4	4	3.2GHz	3.8GHz	8MB	DDR4-2400	Intel UHD Graphics 630
Core i5-8400T	6	6	1.7GHz	3.3GHz	9MB	DDR4-2666	Intel UHD Graphics 630
Core i5-8500T	6	6	2.1GHz	3.5GHz	9MB	DDR4-2666	Intel UHD Graphics 630
Core i5-8600T	6	6	2.3GHz	3.7GHz	9MB	DDR4-2666	Intel UHD Graphics 630
Core i5-9400T	6	6	1.8GHz	3.4GHz	9MB	DDR4-2666	Intel UHD Graphics 630
Core i5-9500T	6	6	2.2GHz	3.7GHz	9MB	DDR4-2666	Intel UHD Graphics 630
Core i5-9600T	6	6	2.3GHz	3.9GHz	9MB	DDR4-2666	Intel UHD Graphics 630
Core i7-8700T	6	12	2.4GHz	4.0GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-9700T	8	8	2.0GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i9-9900T	8	16	2.1GHz	4.4GHz	16MB	DDR4-2666	Intel UHD Graphics 630

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	1x HDMI®, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C®)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x HDMI, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via onboard ports (DisplayPort™ + HDMI + 1x optional port [VGA / 2nd DP / 2nd HDMI / USB-C])

Chipset

Chipset

Intel B360 chipset

Memory

Max Memory[1]

Up to 32GB DDR4-2666

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-2666

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support[1]

Up to two drives, 1x 2.5" HDD/SSD + 1x M.2 SSD

- 2.5" HDD up to 1TB
- 2.5" SSD up to 256GB
- M.2 SSD up to 1TB
- Optional Intel Optane™ Memory, M.2

Storage Type***

Disk Type	Interface	RPM	Security
2.5" SATA SSD	SATA 6Gb/s	-	-
2.5" SATA SSD	SATA 6Gb/s	-	Opal
2.5" SATA HDD	SATA 6Gb/s	5.4K	-
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal

Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-
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RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical**

- DVD-ROM, slim (9.0mm), via USB external ODD box
- DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
- None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233VB2 codec

Speakers**

- Single speaker, 1.5W x1
- Single speaker, 2W x1
- No speakers

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
65W	Adapter	88%	Autosensing
90W	Adapter	88%	Autosensing
135W	Adapter	88%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 183 x 34.5 / 37 mm with rubber feet (7.05 x 7.2 x 1.36 / 1.5 inches with rubber feet)

With VESA mount & ODD box	188.4 x 185.38 x 63 mm (7.42 x 7.30 x 2.48 inches)
---------------------------	--

Weight

Models	Weight
With VESA mount & ODD box	Around 1.66 kg (3.66 lbs)
Tiny only	Around 1.32 kg (2.91 lbs)

Case Color

Black

Bays

1x 2.5" disk bay

Expansion Slots^[1]

- One PCIe 3.0 x8, low-profile
- Two M.2 slots (one for WLAN, one for SSD)

EOU

(Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal

Stand

- Vertical stand
- No stand

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

Others

- (Optional) Dust filter
- (Optional) Power adapter cage

Notes:

1. 2.5" HDD/SSD and PCIe card are mutually exclusive

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-V, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- No optional Ethernet

WLAN + Bluetooth^{®**[1]}

- Realtek RTL8821CE, 802.11ac Dual Band 1x1 Wi-Fi[®] + Bluetooth 4.2, M.2 card
- Realtek RTL8822BE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Intel Dual Band Wireless-AC 3165, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 4.2, M.2 Card
- Intel Dual Band Wireless-AC 8265, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.1 Gen 1 (Always On and fast charge)
- 1x USB-C 3.1 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 2x USB 3.1 Gen 1
- 2x USB 3.1 Gen 2
- 1x HDMI
- 1x DisplayPort
- 1x Ethernet (RJ-45)

Optional Rear Ports^{***}

- 2x USB 3.1 Gen 1 (via 2-port USB expansion card, PCIe x1)
- Optional port 1 (one of VGA / 2nd DisplayPort / 2nd HDMI / serial / USB-C 3.1 Gen 1 with DisplayPort function)
- Optional port 2 (serial)
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2 (USB to 2x PS/2 dongle)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable**^{***}

- VGA Cable Tiny
- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

Non-vPro

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year depot service
- 3-year limited onsite service
- 3-year split limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- EPEAT Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified
- RoHS compliant

Other Certifications

Other Certifications

(Optional) TÜV Rheinland® Ultra Low Noise

Mil-Spec Test

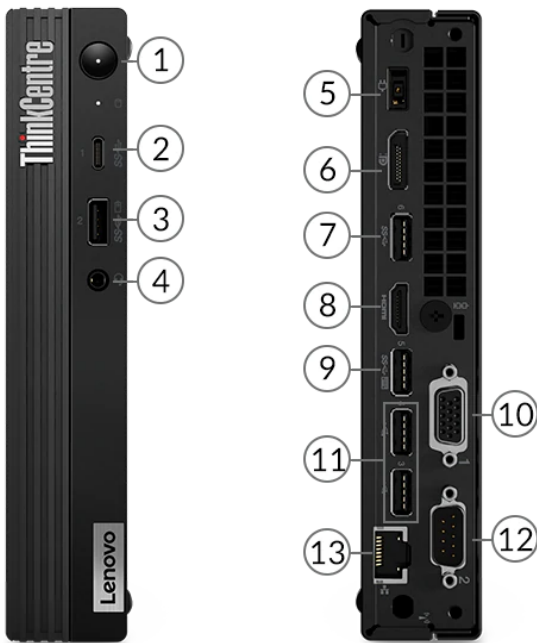
MIL-STD-810G military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.

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OVERVIEW



1. Power button	8. HDMI
2. USB-C 3.2 Gen 1	9. USB 3.2 Gen 1
3. USB 3.2 Gen 2	10. Optional port 1 (VGA is shown)
4. Headphone / microphone combo jack (3.5mm)	11. 2x USB 2.0
5. Power connector	12. Optional port 2 (serial is shown)
6. DisplayPort	13. Ethernet (RJ-45)
7. USB 3.2 Gen 1	

PERFORMANCE

Processor

Processor Family

AMD Athlon™ or AMD Ryzen™ 3 / 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Athlon Silver 3050GE	2	4	3.4GHz	3.4GHz	1MB L2 / 4MB L3	DDR4-2666	AMD Radeon™ Graphics
AMD Athlon Silver PRO 3125GE	2	4	3.4GHz	3.4GHz	1MB L2 / 4MB L3	DDR4-2666	AMD Radeon Graphics
AMD Athlon Gold PRO 3150GE	4	4	3.3GHz	3.8GHz	2MB L2 / 4MB L3	DDR4-2933	AMD Radeon Graphics
AMD Ryzen 3 3200GE	4	4	3.3GHz	3.8GHz	2MB L2 / 4MB L3	DDR4-2933	AMD Radeon Vega 8 Graphics
AMD Ryzen 3 4300GE	4	8	3.5GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 3 5300GE	4	8	3.6GHz	4.2GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 3 PRO 4350GE	4	8	3.5GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 3 PRO 5350GE	4	8	3.6GHz	4.2GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 4600GE	6	12	3.3GHz	4.2GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 5600GE	6	12	3.4GHz	4.4GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 3350GE	4	8	3.3GHz	3.9GHz	2MB L2 / 4MB L3	DDR4-2933	AMD Radeon Vega 11 Graphics
AMD Ryzen 5 PRO 4650GE	6	12	3.3GHz	4.2GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650GE	6	12	3.4GHz	4.4GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 4700GE	8	16	3.1GHz	4.3GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5700GE	8	16	3.2GHz	4.6GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 4750GE	8	16	3.1GHz	4.3GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5750GE	8	16	3.2GHz	4.6GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
AMD Radeon Graphics	Integrated	Shared	1x HDMI®, 1x DisplayPort™, 1x optional port (VGA / 2nd DP / USB-C® / 2nd HDMI / dual DP)	3840x2160@30Hz or 2560x1440@60Hz(HDMI), 1920x1200@60Hz(VGA), 3840x2160(DP)@60Hz	DirectX® 12
AMD Radeon Vega 8 Graphics	Integrated	Shared	1x HDMI, 1x DisplayPort, 1x optional port (VGA / 2nd DP / USB-C / 2nd HDMI / dual DP)	3840x2160@30Hz or 2560x1440@60Hz(HDMI), 1920x1200@60Hz(VGA), 3840x2160(DP)@60Hz	DirectX 12
AMD Radeon Vega 11 Graphics	Integrated	Shared	1x HDMI, 1x DisplayPort, 1x optional port (VGA / 2nd DP / USB-C / 2nd HDMI / dual DP)	3840x2160@30Hz or 2560x1440@60Hz(HDMI), 1920x1200@60Hz(VGA), 3840x2160(DP)@60Hz	DirectX 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via onboard ports (DisplayPort + HDMI) and optional ports (VGA / 2nd DP / 2nd HDMI / USB-C / 2x DP)

Chipset

Chipset

AMD PRO 500 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type^[2]

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

2. Installed memory is actually 3200MHz, but may run at 2666MHz, 2933MHz or 3200MHz depending on the memory support capability of processor

Storage

Storage Support^[1]

Up to two drives, 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 SSD up to 1TB

Storage Type***

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	-
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-

M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
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Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

- Optical**
- DVD-ROM, slim (9.0mm), via USB external ODD box
 - DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
 - None

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC222 codec

Speakers

Single speaker, 1.5W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
65W	Adapter	89%	Autosensing
90W	Adapter	89%	Autosensing

DESIGN

Input Device

- Keyboard**
- Lenovo Calliope Keyboard (USB connector), black
 - Lenovo Calliope Wireless Keyboard, black
 - Lenovo Traditional Keyboard (USB connector), black
 - No keyboard

- Mouse**
- Lenovo Calliope Mouse (USB connector), black
 - Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
 - Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
 - No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 183 x 34.5 / 37 mm with rubber feet (7.05 x 7.2 x 1.36 / 1.5 inches with rubber feet)

- Packaging Dimensions (WxDxH)
- Tiny only: 141 x 268 x 490 mm (5.55 x 10.55 x 19.29 inches)
 - With VESA mount & ODD box: 166 x 268 x 490 mm (6.54x 10.55 x 19.29 inches)

Weight

Models	Weight
Tiny only	1.25 kg (2.76 lbs)

- Packaging Weight
- Tiny only: 2.848 kg (6.28 lbs)

- With VESA mount & ODD box: 3.575 kg (7.88 lbs)

Case Color

Black

Bays

1x 2.5" disk bay

Expansion Slots

- One M.2 slot (for WLAN)
- One M.2 slot (for SSD)

EOU

(Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal

Stand

- Vertical stand
- No stand

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Realtek RTL8111HN, 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Realtek RTL8111FP, 1x RJ-45, supports DASH and Wake-on-LAN

WLAN + Bluetooth®^[1]**

- Realtek RTL8822BE, 802.11ac Dual Band 1x1 Wi-Fi® + Bluetooth 5.0, M.2 card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.2 Gen 2 (Always On and fast charge)
- 1x USB-C 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)

Rear Ports^[2]

- 2x USB 2.0
- 2x USB 3.2 Gen 1
- 1x HDMI
- 1x DisplayPort
- 1x Ethernet (RJ-45)

Optional Rear Ports***

- 2x USB 3.2 Gen 1 (occupies port 1 and 2)
- 4x USB 3.2 Gen 1 (share one USB 3.2 Gen 1 bandwidth, occupy optional port 1 and 2)
- 2x DisplayPort (occupies port 1 and 2)
- Optional port 1 (one of VGA / 2nd DisplayPort / 2nd HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort function)
- Optional port 2 (serial)
- 1x parallel

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- VGA Cable Tiny
- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

- DASH 1.2
- Non-DASH

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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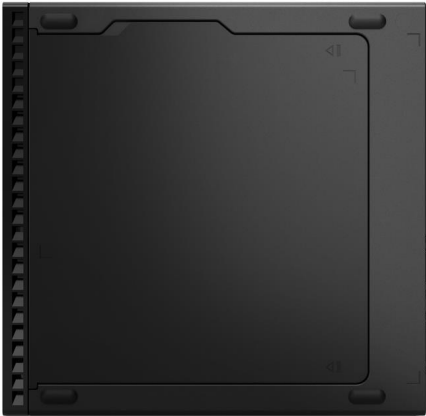
AMD



AMD



AMD



AMD

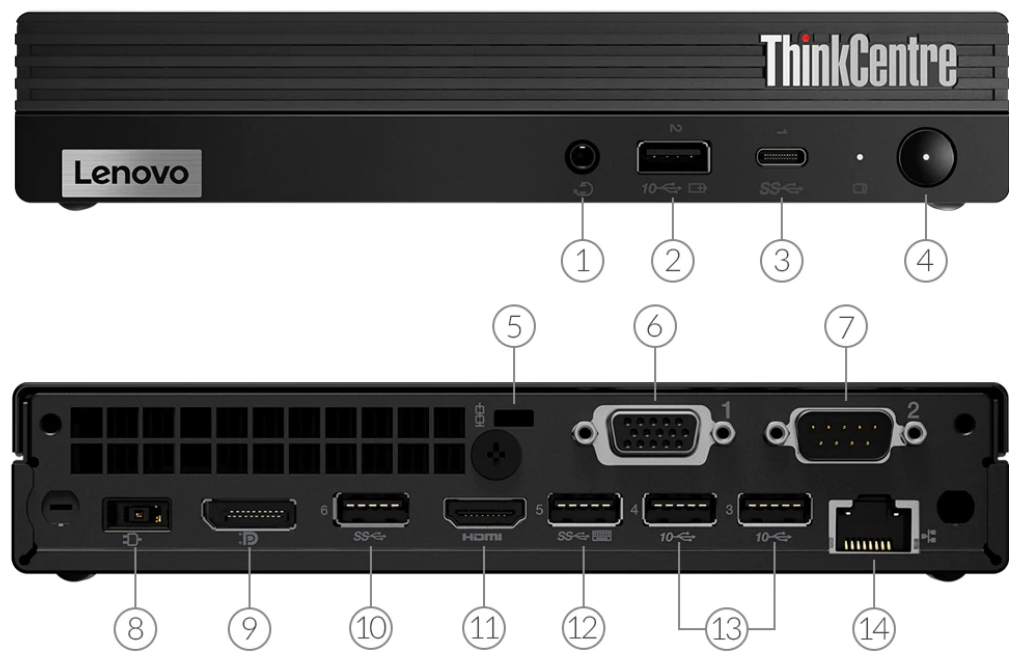


AMD



AMD

OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	8. Power connector
2. USB 3.2 Gen 2	9. DisplayPort
3. USB-C 3.2 Gen 1	10. USB 3.2 Gen 2
4. Power button	11. HDMI
5. Kensington Security Slot	12. USB 3.2 Gen 2
6. Optional port 1 (VGA is shown) *	13. 2x USB 3.2 Gen 1
7. Optional port 2 (serial is shown) *	14. Ethernet (RJ-45)

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 10th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5900T	2	2	3.2GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5905T	2	2	3.3GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6400T	2	4	3.4GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6500T	2	4	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100T	4	8	3.0GHz	3.8GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300T	4	8	3.0GHz	3.9GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400T	6	12	2.0GHz	3.6GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500T	6	12	2.3GHz	3.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600T	6	12	2.4GHz	4.0GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700T	8	16	2.0GHz	4.5GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900T	10	20	1.9GHz	4.6GHz	20MB	DDR4-2933	Intel UHD Graphics 630

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	1x HDMI®, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C® / dual DP)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x HDMI, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C / dual DP)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via (onboard DP, onboard HDMI, and one optional port [VGA / 2nd DP / 2nd HDMI / USB-C]) or (one onboard port [DP / HDMI] and optional dual DP [MST mode])

Chipset

Chipset

Intel Q470 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-2933

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type^{**}

- DDR4-2666
- DDR4-2933

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 SSD up to 2TB
- Optional Intel Optane™ Memory, M.2

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical^{**}

- DVD-ROM, slim (9.0mm), via USB external ODD box
- DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
- None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233VB codec or ALC897Q codec

Speakers

Single speaker, 1.5W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
65W	Adapter	89%	Autosensing
90W	Adapter	89%	Autosensing
135W	Adapter	89%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 183 x 34.5 / 37 mm with rubber feet (7.05 x 7.2 x 1.36 / 1.5 inches with rubber feet)
With VESA mount & ODD box	187 x 183.8 x 66.5 mm (7.36 x 7.24 x 2.62 inches)

Packaging Dimensions (WxDxH)

- Tiny only: 141 x 268 x 490 mm (5.55 x 10.55 x 19.29 inches)
- With VESA mount & ODD box: 166 x 268 x 490 mm (6.54x 10.55 x 19.29 inches)

Weight

Models	Weight
Tiny only	1.25 kg (2.76 lbs)
With VESA mount & ODD box	1.74 kg (3.84 lbs)

Packaging Weight

- Tiny only: 2.848 kg (6.28 lbs)
- With VESA mount & ODD box: 3.575 kg (7.88 lbs)

Case Color

Black

Bays

1x 2.5" disk bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

(Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal

Stand

- Vertical stand
- No stand

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

Others

- (Optional) Dust filter
- (Optional) Power adapter cage

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth®^[1]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.2 Gen 2 (Always On and fast charge)
- 1x USB-C 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x HDMI
- 1x DisplayPort™
- 1x Ethernet (RJ-45)

Optional Rear Ports***

- 2x USB 3.2 Gen 1 ports (share one USB 3.2 Gen 1 bandwidth, occupy optional port 1 and 2)
- 2x DisplayPort ports (occupy Optional port 1 and 2)
- Optional port 1 (one of VGA / 2nd DisplayPort / 2nd HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort function)
- Optional port 2 (serial)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^{[1][2]}

- Intel vPro with Intel AMT 14.0
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant

Other Certifications

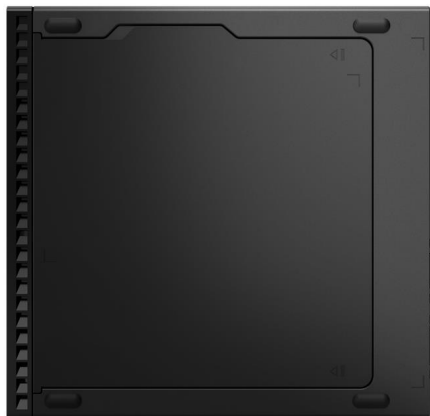
Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

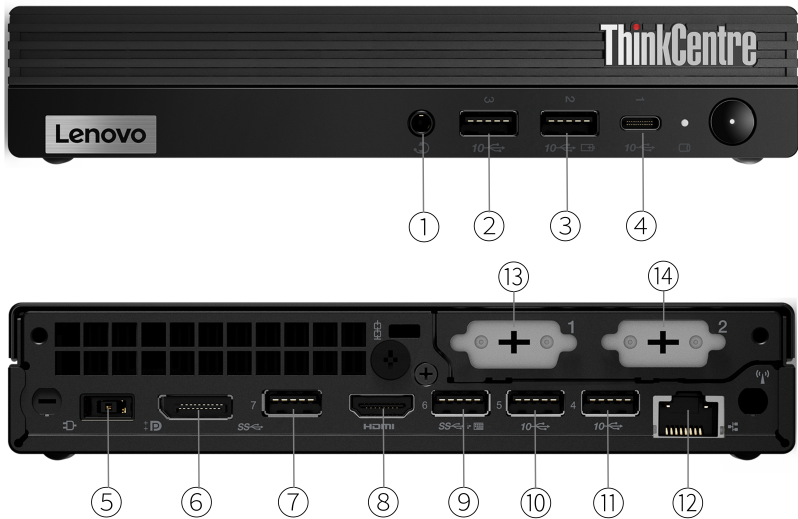
Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	8. HDMI
2. USB 3.2 Gen 2	9. USB 3.2 Gen 1 (with Smart Power On feature)
3. USB 3.2 Gen 2 (Always On and fast charge)	10. USB 3.2 Gen 2
4. USB-C 3.2 Gen 2	11. USB 3.2 Gen 2
5. Power connector	12. Ethernet (RJ-45)
6. DisplayPort	13. Optional port 1 *
7. USB 3.2 Gen 1	14. Optional port 2 *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G6900T	2	2	2.8GHz	-	4MB	DDR5-4800	Intel UHD Graphics 710
Pentium Gold G7400T	2	4	3.1GHz	-	6MB	DDR5-4800	Intel UHD Graphics 710
Core i3-12100T	4 (4 P-core + 0 E-core)	8	P-core 2.2GHz	P-core 4.1GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3-12300T	4 (4 P-core + 0 E-core)	8	P-core 2.3GHz	P-core 4.2GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12400T	6 (6 P-core + 0 E-core)	12	P-core 1.8GHz	P-core 4.2GHz	18MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12500T	6 (6 P-core + 0 E-core)	12	P-core 2.0GHz	P-core 4.4GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12600T	6 (6 P-core + 0 E-core)	12	P-core 2.1GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700T	12 (8 P-core + 4 E-core)	20	P-core 1.4GHz / E-core 1.0GHz	P-core 4.6GHz / E-core 3.4GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900T	16 (8 P-core + 8 E-core)	24	P-core 1.4GHz / E-core 1.0GHz	P-core 4.8GHz / E-core 3.6GHz	30MB	DDR5-4800	Intel UHD Graphics 770

Operating System

Operating System**[1]

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 IoT Enterprise LTSC 2021
- Ubuntu Linux
- Red Hat Enterprise Linux (certified only)
- No operating system

Notes:

- Windows 10 IoT Enterprise LTSC 2021 is for special bid only.

Graphics

Graphics**[1]

Graphics	Type	Memory	Boost Clock	TGP	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 710	Integrated	Shared	-	-	1x HDMI® 2.1 TMDS, 1x DP 1.4, 2x punch out ports([2x HDMI/VGA/DP] or [USB-C® with DP function, HDMI/VGA/DP])	4096x2160@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2160@60Hz(DP), 4096x2160@60Hz(USB-C with DP function)	DirectX® 12	-
Intel UHD graphics 730	Integrated	Shared	-	-	1x HDMI 2.1 TMDS, 1x DP 1.4, 2x punch out ports([2x HDMI/VGA/DP] or	4096x2160@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2160@60Hz(DP), 4096x2160@60Hz(USB-C with	DirectX 12	-

					[USB-C with DP function, HDMI/VGA/DP]]	DP function)		
Intel UHD graphics 770	Integrated	Shared	-	-	1x DP 1.4, 1x HDMI 2.1 TMDS, 2x punch out ports([2x HDMI/VGA/DP] or [USB-C with DP function, HDMI/VGA/DP])	4096x2160@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2160@60Hz(DP), 4096x2160@60Hz(USB-C with DP function)	DirectX 12	-

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 4 independent displays via (onboard DP, onboard HDMI, punch out port 1 [VGA / HDMI / DP / USB-C], and punch out port 2 [VGA / HDMI / DP])

Chipset

Chipset

Intel Q670 chipset

Memory

Max Memory^[1]

Up to 64GB DDR5-4800

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type

DDR5-4800

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to three drives, 1x 2.5" HDD + 2x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 SSD up to 2TB each

Storage Type^{***}

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	500GB / 1TB	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	128GB	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	256GB / 512GB / 1TB	Opal2

RAID

None

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

**

- DVD-ROM, slim (9.0mm), via USB external ODD box
- DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
- None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC256VB codec

Speakers**

- Single speaker, 2W x1
- Premium single speaker, 2W x1

Microphone

No microphone

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
65W	Adapter	89%	Autosensing
90W	Adapter	89%	Autosensing
135W	Adapter	89%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard, black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), black
- No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 182.9 x 36.5 mm with rubber feet (7.05 x 7.2 x 1.44 inches with rubber feet)
Tiny & ODD	204.2 x 186.6 x 64 mm with rubber feet (8.04 x 7.35 x 2.52 inches with rubber feet)

Packaging Dimensions (WxDxH)

- Tiny only : 490 x 268 x 141 mm (19.29 x 10.55 x 5.55 inches)
- Tiny & ODD : 490 x 268 x 166 mm (19.29 x 10.55 x 6.54 inches)

Weight

Models	Weight
--------	--------

Tiny only	1.25 kg (2.76 lbs)
With VESA mount & ODD box	1.74 kg (3.84 lbs)

Packaging Weight

- Tiny & ODD: 3.58 kg (7.89 lbs)
- Tiny only: 2.848 kg (6.28 lbs)

Case Color

Black

Bays

1x 2.5" disk bay

Expansion Slots

- Two M.2 PCIe Gen 4x4 slots (for SSD)
- One M.2 slot (for WLAN)

EOU

- (Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal
- No support

Stand

- Vertical stand
- No stand

IO Box

No IO box

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

Others

- (Optional) Dust filter
- (Optional) Power adapter cage

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

- No optional Ethernet
- 2.5 Gigabit Ethernet, Realtek RTL8125BGS, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**^[1]

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek RTL8822BE, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.2 Gen 2
- 1x USB 3.2 Gen 2 (Always On and 5V@2.1A charging)
- 1x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 2x USB 3.2 Gen 1 (one supports Smart Power On)
- 2x USB 3.2 Gen 2
- 1x HDMI 2.1 TMDs
- 1x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)

Optional Rear Ports

- Punch out port 1 (one of VGA / DisplayPort / HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort functions)
- 2x USB 3.2 Gen 1 (share one USB 3.2 Gen 1 bandwidth, occupies port 1 and 2)
- 4x USB 3.2 Gen 1 (share one USB 3.2 Gen 1 bandwidth, occupy optional port 1 and 2)
- 1x 2.5GbE RJ-45, via RTL8125BGS
- Punch out port 2 (one of VGA / DisplayPort / HDMI / serial / RJ-45)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable**

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI dongle
- DP to VGA dongle
- HDMI to VGA dongle
- DP to DVI dongle
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Certificate based BIOS management
- Cover presence switch
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management**^[1]

- Intel vPro Enterprise with Intel AMT 16.0
- Intel vPro Essentials with Intel AMT 16.0
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Other Certifications

(Optional) TÜV Rheinland® Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.

• Feature with *** means that one or more offerings listed under the feature could be configured on selected
ThinkCentre M80q Gen 3 - June 29 2022

models.

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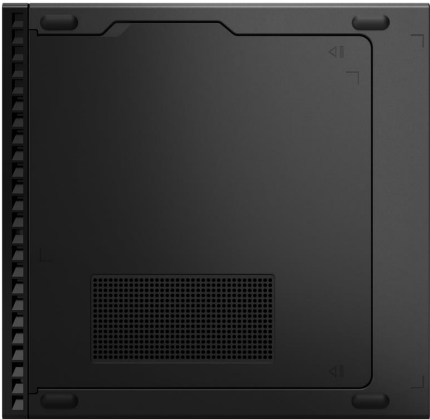
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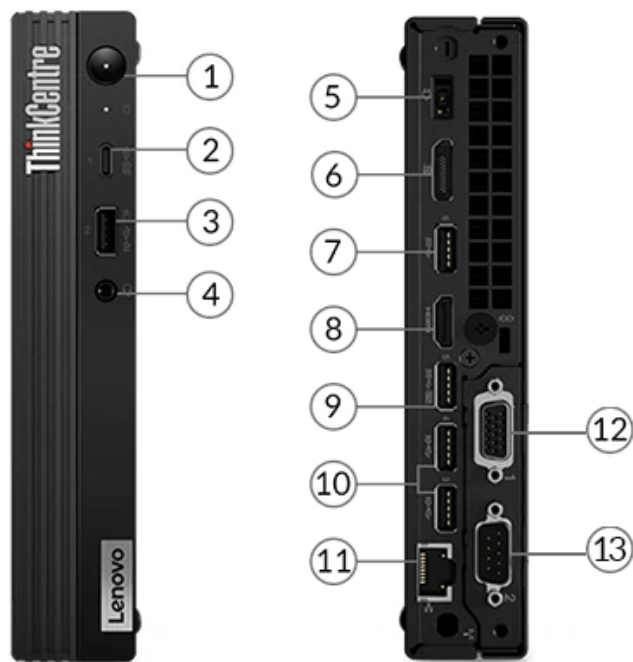


intel



intel

OVERVIEW



1. Power button	8. HDMI
2. USB-C 3.2 Gen 1	9. USB 3.2 Gen 1
3. USB 3.2 Gen 2	10. 2x USB 3.2 Gen 2
4. Headphone / microphone combo jack (3.5mm)	11. Ethernet (RJ-45)
5. Power connector	12. Optional port 1 (VGA is shown) *
6. DisplayPort	13. Optional port 2 (serial is shown) *
7. USB 3.2 Gen 1	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 10th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5900	2	2	3.4GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5900T	2	2	3.2GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5905	2	2	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5905T	2	2	3.3GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5920	2	2	3.5GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6400	2	4	4.0GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6400T	2	4	3.4GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6500	2	4	4.1GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6500T	2	4	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6600	2	4	4.2GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100T	4	8	3.0GHz	3.8GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300T	4	8	3.0GHz	3.9GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400T	6	12	2.0GHz	3.6GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500T	6	12	2.3GHz	3.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600T	6	12	2.4GHz	4.0GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-10700T	8	16	2.0GHz	4.5GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics

							630
Core i9-10900T	10	20	1.9GHz	4.6GHz	20MB	DDR4-2933	Intel UHD Graphics 630

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	1x HDMI®, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C® / dual DP)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x HDMI, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C / dual DP)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via (onboard DP, onboard HDMI, and one optional port [VGA / 2nd DP / 2nd HDMI / USB-C]) or (one onboard port [DP / HDMI] and optional dual DP [MST mode])

Chipset

Chipset

Intel Q470 chipset

Memory

Max Memory[1]

Up to 64GB DDR4-2933

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type**[2]

- DDR4-2666
- DDR4-2933

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

2. Installed memory is actually 3200MHz, but may run at 2666MHz or 2933MHz, depending on the memory support capability of processor

Storage

Storage Support[1]

Up to three drives, 1x 2.5" HDD + 2x M.2 SSD

- 2.5" HDD up to 1TB

- M.2 SSD up to 2TB each
- Optional Intel Optane™ Memory, M.2

Storage Type***

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

RAID

RAID 0/1 support for M.2 SSDs (RAID preset only available via special bid model)

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical**

- DVD-ROM, slim (9.0mm), via USB external ODD box
- DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
- None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233VB codec

Speakers

Single speaker, 1.5W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
65W	Adapter	89%	Autosensing
90W	Adapter	89%	Autosensing
135W	Adapter	89%	Autosensing
230W	Adapter	89%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black

- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 183 x 34.5 / 37 mm with rubber feet (7.05 x 7.2 x 1.36 / 1.5 inches with rubber feet)
With VESA mount & ODD box	187 x 183.8 x 66.5 mm (7.36 x 7.24 x 2.62 inches)

Weight

Models	Weight
Tiny only	1.25 kg (2.76 lbs)
With VESA mount & ODD box	1.74 kg (3.84 lbs)

Case Color

Black

Bays

1x 2.5" disk bay

Expansion Slots^[1]

- One PCIe 3.0 x8, low-profile
- Three M.2 slots (one for WLAN, two for SSD)

EOU

(Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal

Stand

- Vertical stand
- No stand

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

Others

- (Optional) Dust filter
- (Optional) Power adapter cage

Notes:

1. PCIe 3.0 x8 slot is for Lenovo qualified PCIe cards, Intel I350-T4 ethernet card and 4x serial port expansion card. The PCIe card occupies the space of 2.5" HDD/SSD and optional ports, they are mutually exclusive.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet^[1]

- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- No optional Ethernet

WLAN + Bluetooth®**^[2]

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Intel Ethernet Server Adapter I350-T4 is not available in EMEA
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.2 Gen 2 (Always On and fast charge)
- 1x USB-C 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x HDMI
- 1x DisplayPort™
- 1x Ethernet (RJ-45)

Optional Rear Ports***

- 2x USB 3.2 Gen 1 ports (share one USB 3.2 Gen 1 bandwidth, occupy optional port 1 and 2)
- 4x USB 3.2 Gen 1 (share one USB 3.2 Gen 1 bandwidth, occupy optional port 1 and 2)
- 2x DisplayPort ports (occupy Optional port 1 and 2)
- Optional port 1 (one of VGA / 2nd DisplayPort / 2nd HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort function)
- Optional port 2 (serial)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password

- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^{[1][2]}

- Intel vPro with Intel AMT 14.0
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant

Other Certifications

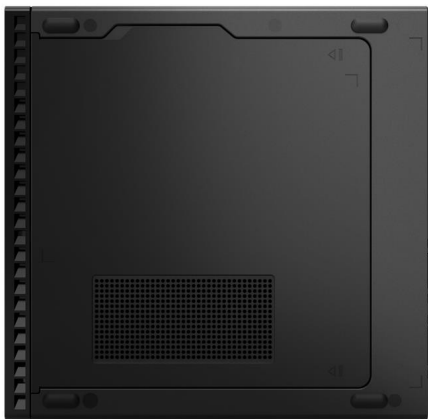
Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

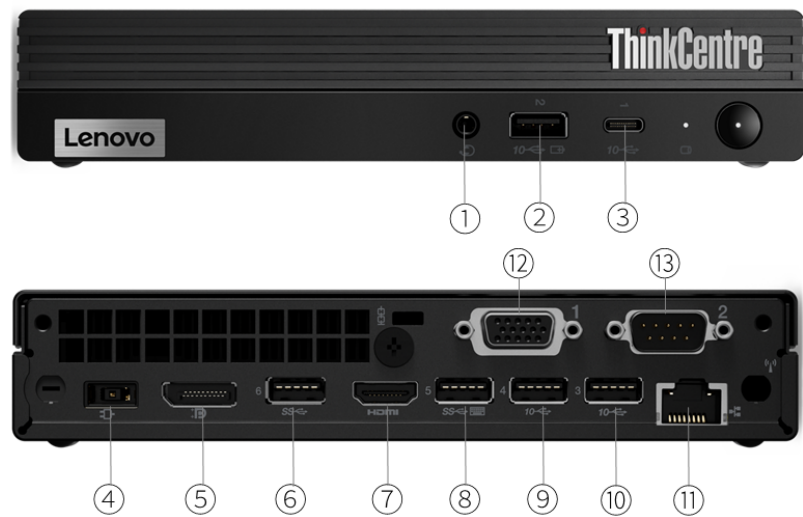
Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	8. USB 3.2 Gen 1
2. USB 3.2 Gen 2	9. USB 3.2 Gen 2
3. USB-C 3.2 Gen 2	10. USB 3.2 Gen 2
4. Power connector	11. Ethernet (RJ-45)
5. DisplayPort	12. Optional port 1 (VGA is shown) *
6. USB 3.2 Gen 1	13. Optional port 2 (serial is shown) *
7. HDMI	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, 10th Generation Intel Core™ i3, or 11th Generation Intel Core i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5905T	2	2	3.3GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6505T	2	4	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6605	2	4	4.3GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10105	4	8	3.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10105T	4	8	3.0GHz	3.9GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10305	4	8	3.8GHz	4.5GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10305T	4	8	3.0GHz	4.0GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10325	4	8	3.9GHz	4.7GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-11400	6	12	2.6GHz	4.4GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-11400T	6	12	1.3GHz	3.7GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-11500	6	12	2.7GHz	4.6GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11500T	6	12	1.5GHz	3.9GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11600	6	12	2.8GHz	4.8GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11600T	6	12	1.7GHz	4.1GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i7-11700	8	16	2.5GHz	4.9GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i7-11700T	8	16	1.4GHz	4.6GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-11900	8	16	2.5GHz	5.2GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-11900T	8	16	1.5GHz	4.9GHz	16MB	DDR4-3200	Intel UHD Graphics 750

Operating System

Operating System**

- Windows® 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[]

Graphics	Type	Memory	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 610	Integrated	Shared	1x HDMI®, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C® /	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA),	DirectX® 12	-

			dual DP)	4096x2304@60Hz(USB-C)		
Intel UHD graphics 630	Integrated	Shared	1x HDMI, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C / dual DP)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX 12	-
Intel UHD Graphics 730	Integrated	Shared	1x HDMI, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C / dual DP)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX 12	-
Intel UHD Graphics 750	Integrated	Shared	1x HDMI, 1x DP, 1x optional video port (2nd HDMI / VGA / 2nd DP / USB-C / dual DP)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 3840x2160@60Hz(Dual DP, MST mode), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)	DirectX 12	-

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via (onboard DP, onboard HDMI, and one optional port [VGA / 2nd DP / 2nd HDMI / USB-C]) or (one onboard port [DP / HDMI] and optional dual DP [MST mode])

Chipset

Chipset

Intel Q570 chipset

Memory

Max Memory^[1]

- Up to 64GB DDR4-2666
- Up to 64GB DDR4-2933
- Up to 64GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type^{**[2]}

- DDR4-2666
- DDR4-2933
- DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

2. Installed memory is actually 3200MHz, but may run at 2666MHz, 2933 MHz or 3200MHz depending on the memory support capability of processor

Storage

Storage Support^[1]

Up to three drives, 1x 2.5" HDD + 2x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 SSD up to 2TB each

Storage Type^{***}

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
M.2 2242 SSD	PCIe® NVMe®	-	-	-

M.2 2280 SSD	PCIe NVMe	-	-	Opal
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RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical**

- DVD-ROM, slim (9.0mm), via USB external ODD box
- DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
- None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233VB codec

Speakers

Single speaker, 1.5W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
65W	Adapter	89%	Autosensing
90W	Adapter	89%	Autosensing
135W	Adapter	89%	Autosensing
230W	Adapter	89%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard, black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), black
- No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 182.9 x 36.5 mm with rubber feet (7.05 x 7.2 x 1.44 inches with rubber feet)

Packaging Dimensions (WxDxH)

- Tiny only: 141 x 268 x 490 mm (5.55 x 10.55 x 19.29 inches)
- With VESA mount & ODD box: 166 x 268 x 490 mm (6.54x 10.55 x 19.29 inches)

Weight

Models	Weight
Tiny only	1.25 kg (2.76 lbs)
With VESA mount & ODD box	1.74 kg (3.84 lbs)

Packaging Weight

- Tiny only: 2.848 kg (6.28 lbs)
- With VESA mount & ODD box: 3.575 kg (7.88 lbs)

Case Color

Black

Bays

1x 2.5" disk bay

Expansion Slots

Three M.2 slots (one for WLAN, two for SSD)

EOU

- (Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal
- No support

Stand

- Vertical stand
- No stand

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

Others

- (Optional) Dust filter
- (Optional) Power adapter cage

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet^[1]

- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- No optional Ethernet

WLAN + Bluetooth®**^[2]

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Intel Ethernet Server Adapter I350-T4 is not available in EMEA
2. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.2 Gen 2 (Always On and fast charge)
- 1x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x HDMI
- 1x DisplayPort™
- 1x Ethernet (RJ-45)

Optional Rear Ports***

- 2x USB 3.2 Gen 1 ports (share one USB 3.2 Gen 1 bandwidth, occupy optional port 1 and 2)
- 4x USB 3.2 Gen 1 (share one USB 3.2 Gen 1 bandwidth, occupy optional port 1 and 2)
- 2x DisplayPort ports (occupy Optional port 1 and 2)
- Optional port 1 (one of VGA / 2nd DisplayPort / 2nd HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort function)
- Optional port 2 (serial)
- I/O Box

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable*****

- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY**System Management**

System Management^[1]

- Intel vPro
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE**Warranty****Base Warranty^{**[1]}**

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL**Operating Environment****Temperature**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 20% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: -15.2 m (-50 ft) to 10668 m (35,000 ft)

CERTIFICATIONS**Green Certifications****Green Certifications**

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications**Other Certifications**

(Optional) Windows 10 Secured-core PCs

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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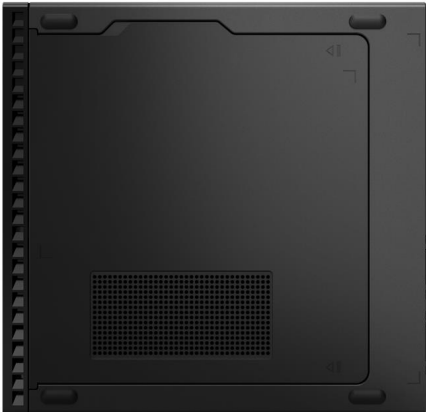
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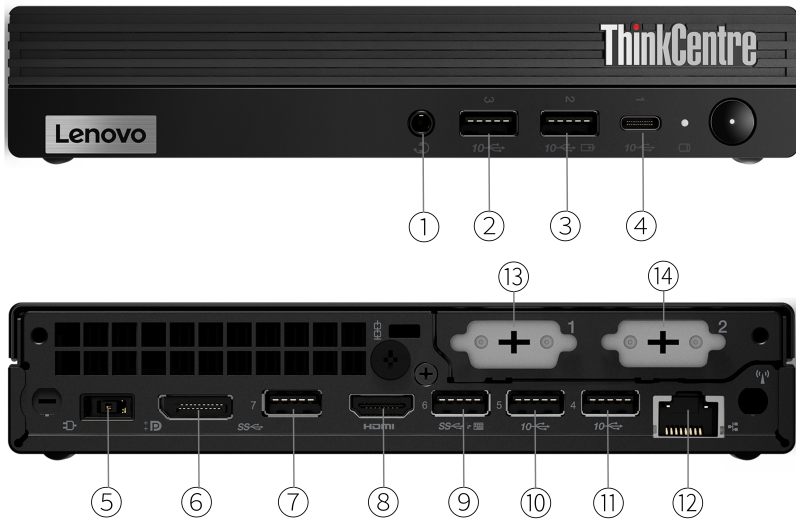


intel



intel

OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	8. HDMI
2. USB 3.2 Gen 2	9. USB 3.2 Gen 1 (with Smart Power On feature)
3. USB 3.2 Gen 2 (Always On and fast charge)	10. USB 3.2 Gen 2
4. USB-C 3.2 Gen 2	11. USB 3.2 Gen 2
5. Power connector	12. Ethernet (RJ-45)
6. DisplayPort	13. Optional port 1 *
7. USB 3.2 Gen 1	14. Optional port 2 *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G6900	2	2	3.4GHz	-	4MB	DDR5-4800	Intel UHD Graphics 710
Celeron G6900T	2	2	2.8GHz	-	4MB	DDR5-4800	Intel UHD Graphics 710
Pentium Gold G7400T	2	4	3.1GHz	-	6MB	DDR5-4800	Intel UHD Graphics 710
Pentium Gold G7400	2	4	3.7GHz	-	6MB	DDR5-4800	Intel UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3-12100T	4 (4 P-core + 0 E-core)	8	P-core 2.2GHz	P-core 4.1GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3-12300T	4 (4 P-core + 0 E-core)	8	P-core 2.3GHz	P-core 4.2GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR4-3200	Intel UHD Graphics 730
Core i5-12400T	6 (6 P-core + 0 E-core)	12	P-core 1.8GHz	P-core 4.2GHz	18MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12500T	6 (6 P-core + 0 E-core)	12	P-core 2.0GHz	P-core 4.4GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12600T	6 (6 P-core + 0 E-core)	12	P-core 2.1GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700T	12 (8 P-core + 4 E-core)	20	P-core 1.4GHz / E-core 1.0GHz	P-core 4.6GHz / E-core 3.4GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900T	16 (8 P-core + 8 E-core)	24	P-core 1.4GHz / E-core 1.0GHz	P-core 4.8GHz / E-core 3.6GHz	30MB	DDR5-4800	Intel UHD Graphics 770

Operating System

Operating System**[1]

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 IoT Enterprise LTSC 2021
- Ubuntu Linux
- Red Hat Enterprise Linux (certified only)

- No operating system

Notes:

1. Windows 10 IoT Enterprise LTSC 2021 is for special bid only.

Graphics

Graphics**[1]

Graphics	Type	Memory	Boost Clock	TGP	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 710	Integrated	Shared	-	-	1x HDMI® 2.1 TMDS, 1x DP 1.4, 2x punch out ports([2x HDMI/VGA/DP] or [USB-C® with DP function, HDMI/VGA/DP])	4096x2160@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2160@60Hz(DP), 4096x2160@60Hz(USB-C with DP function)	DirectX® 12	-
Intel UHD graphics 730	Integrated	Shared	-	-	1x HDMI 2.1 TMDS, 1x DP 1.4, 2x punch out ports([2x HDMI/VGA/DP] or [USB-C with DP function, HDMI/VGA/DP])	4096x2160@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2160@60Hz(DP), 4096x2160@60Hz(USB-C with DP function)	DirectX 12	-
Intel UHD graphics 770	Integrated	Shared	-	-	1x DP 1.4, 1x HDMI 2.1 TMDS, 2x punch out ports([2x HDMI/VGA/DP] or [USB-C with DP function, HDMI/VGA/DP])	4096x2160@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2160@60Hz(DP), 4096x2160@60Hz(USB-C with DP function)	DirectX 12	-

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 4 independent displays via (onboard DP, onboard HDMI, punch out port 1 [VGA / HDMI / DP / USB-C], and punch out port 2 [VGA / HDMI / DP])

Chipset

Chipset

Intel Q670 chipset

Memory

Max Memory[1]

Up to 64GB DDR5-4800

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type

DDR5-4800

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support[1]

- Up to three drives, 1x 2.5" HDD + 2x M.2 SSD
- 2.5" HDD up to 1TB
 - M.2 SSD up to 2TB each

Storage Type***

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	500GB / 1TB	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	128GB	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	256GB / 512GB / 1TB	Opal2

RAID

None

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical**

- DVD-ROM, slim (9.0mm), via USB external ODD box
- DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
- None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC256VB codec

Speakers**

- Single speaker, 2W x1
- Premium single speaker, 2W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
65W	Adapter	89%	Autosensing
90W	Adapter	89%	Autosensing
135W	Adapter	89%	Autosensing
230W	Adapter	89%	Autosensing
No power supply	-	-	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard, black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), black

- No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 182.9 x 36.5 mm with rubber feet (7.05 x 7.2 x 1.44 inches with rubber feet)
Tiny & ODD	204.2 x 186.6 x 64 mm with rubber feet (8.04 x 7.35 x 2.52 inches with rubber feet)

Packaging Dimensions (WxDxH)

- Tiny only : 490 x 268 x 141 mm (19.29 x 10.55 x 5.55 inches)
- Tiny & ODD : 490 x 268 x 166 mm (19.29 x 10.55 x 6.54 inches)

Weight

Models	Weight
Tiny only	1.25 kg (2.76 lbs)
With VESA mount & ODD box	1.74 kg (3.84 lbs)

Packaging Weight

- Tiny & ODD: 3.58 kg (7.89 lbs)
- Tiny only: 2.848 kg (6.28 lbs)

Case Color

Black

Bays

1x 2.5" disk bay

Expansion Slots

- One PCIe 4.0 x8, low-profile
- Two M.2 PCIe Gen 4x4 slots (for SSD)
- One M.2 slot (for WLAN)

EOU

- (Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal
- No support

Stand

- Vertical stand
- No stand

IO Box

No IO box

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

Others

- (Optional) Dust filter
- (Optional) Power adapter cage

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- No optional Ethernet

- 2.5 Gigabit Ethernet, Realtek RTL8125BGS, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®^[1]**

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek RTL8822BE, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 5.2, M.2 card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Realtek Wi-Fi 6E RTL8852CE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, Intel vPro technology support, M.2 Card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Front Ports**

- 1x USB 3.2 Gen 2
- 1x USB 3.2 Gen 2 (Always On and 5V@2.1A charging)
- 1x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 2x USB 3.2 Gen 1 (one supports Smart Power On)
- 2x USB 3.2 Gen 2
- 1x HDMI 2.1 TMDS
- 1x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)

Optional Rear Ports

- Punch out port 1 (one of VGA / DisplayPort / HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort functions)
- 2x USB 3.2 Gen 1 (share one USB 3.2 Gen 1 bandwidth, occupies port 1 and 2)
- 4x USB 3.2 Gen 1 (share one USB 3.2 Gen 1 bandwidth, occupy optional port 1 and 2)
- 1x 2.5GbE RJ-45, via RTL8125BGS
- 4x GbE RJ-45, via I350-T4
- Punch out port 2 (one of VGA / DisplayPort / HDMI / serial / RJ-45)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable**

- DP to dual DP dongle
- DP to HDMI dongle
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- DP to DVI dongle
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Certificate based BIOS management
- Cover presence switch
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Enterprise with Intel AMT 16.0
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- (Optional) EPEAT Gold
- (Optional) EPEAT Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Other Certifications

(Optional) TÜV Rheinland® Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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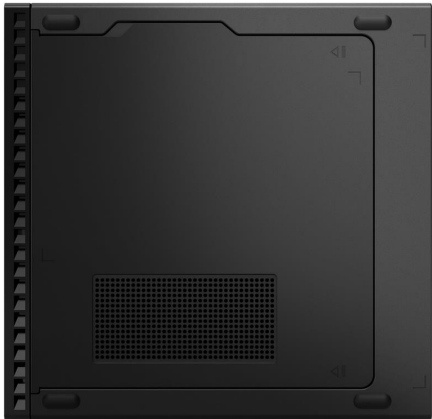
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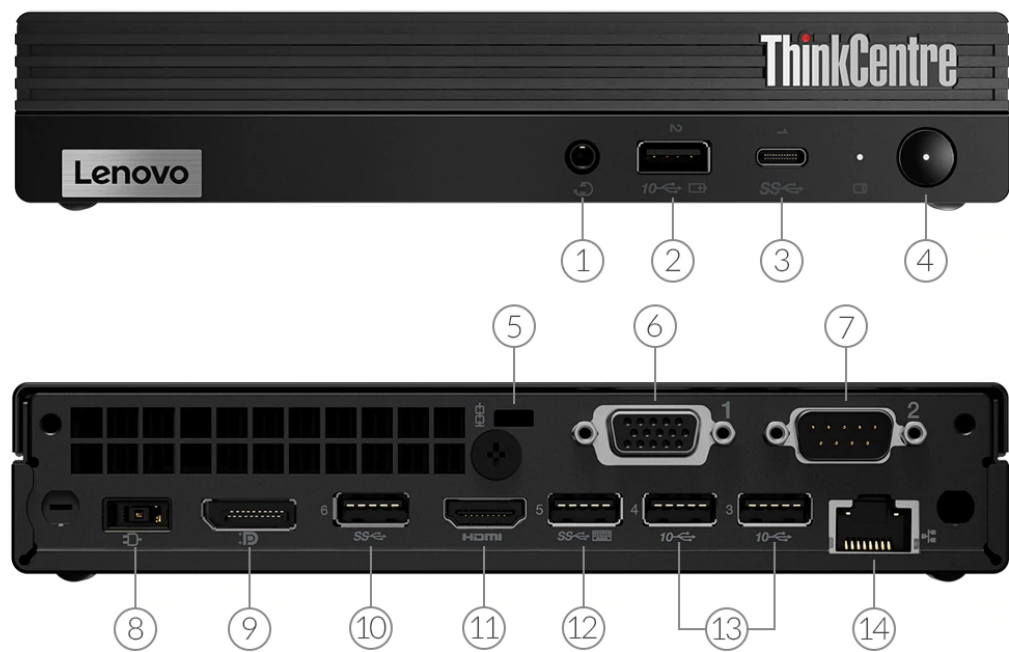


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intel

OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	8. Power connector
2. USB 3.2 Gen 2	9. DisplayPort
3. USB-C 3.2 Gen 1	10. USB 3.2 Gen 2
4. Power button	11. HDMI
5. Kensington Security Slot	12. USB 3.2 Gen 2
6. Optional port 1 (VGA is shown)	13. 2x USB 3.2 Gen 1
7. Optional port 2 (serial is shown)	14. Ethernet (RJ-45)

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10500T	6	12	2.3GHz	3.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630

Operating System

Operating System

Windows® 10 IoT Enterprise SAC 64 with Intel Unite

Graphics

Graphics^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 630	Integrated	Shared	1x HDMI®, 1x DP	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP)	DirectX® 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via (onboard DP, onboard HDMI, and one optional port [VGA / 2nd DP / 2nd HDMI / USB-C®]) or (one onboard port [DP / HDMI] and optional dual DP [MST mode])

Chipset

Chipset

Intel Q470 chipset

Memory

Max Memory^[1]

Up to 16GB DDR4-2666

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-2666

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, up to 256GB M.2 2280 SSD

Storage Type**

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical

None

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233VB codec

Speakers

Single speaker, 1.5W x1

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
135W	Adapter	89%	Autosensing

DESIGN

Input Device

Keyboard

- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse

- USB Calliope Mouse, black
- No mouse

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 183 x 34.5 / 37 mm with rubber feet (7.05 x 7.2 x 1.36 / 1.5 inches with rubber feet)

Weight

Models	Weight
Tiny only	1.25 kg (2.76 lbs)

Case Color

Black

Bays

No bays

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

EOU

No support

Stand

- Vertical stand
- No stand

IO Box

No IO box

Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth^[1]

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.2 Gen 2 (Always On and fast charge)
- 1x USB-C 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x HDMI
- 1x DisplayPort™
- 1x Ethernet (RJ-45)

Optional Rear Ports

1x USB-C 3.2 Gen 1

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable

No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

Intel vPro with Intel AMT 14.0

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{[1]}**

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0

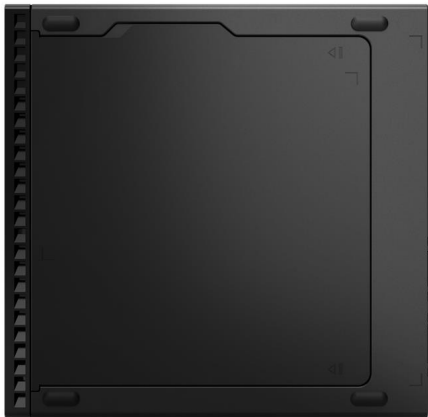
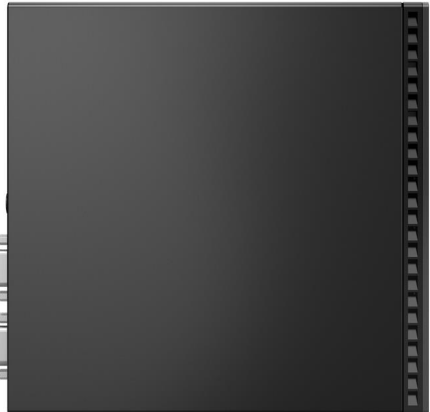
- RoHS compliant

Other Certifications

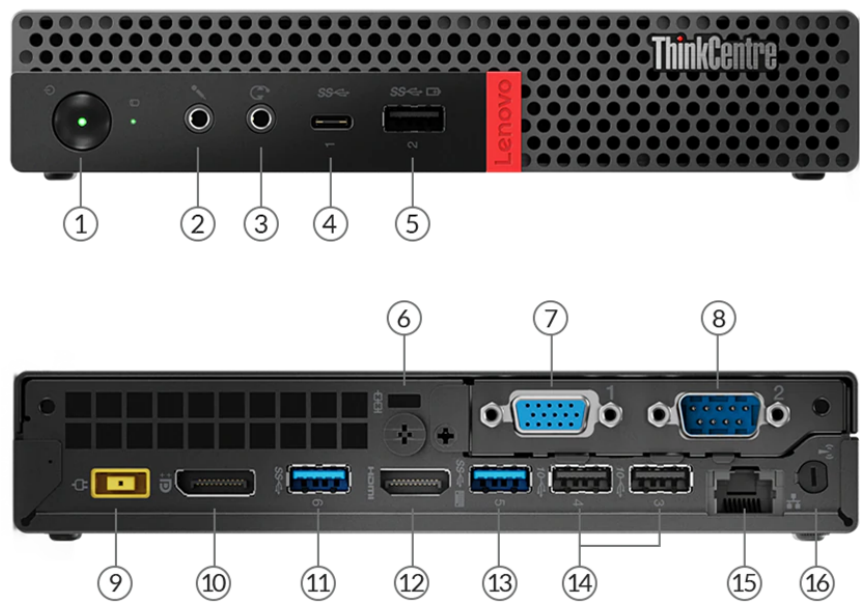
Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

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OVERVIEW



1. Power button	9. Power connector
2. Microphone (3.5mm)	10. DisplayPort
3. Headphone / microphone combo jack (3.5mm)	11. USB 3.1 Gen 1
4. USB-C 3.1 Gen 1	12. HDMI
5. USB 3.1 Gen 1	13. USB 3.1 Gen 1
6. Kensington Security Slot	14. 2x USB 3.1 Gen 2
7. Optional port 1 (VGA is shown) *	15. Ethernet (RJ-45)
8. Optional port 2 (serial is shown) *	16. Wi-Fi antenna *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

9th Generation Intel® Core™ i5 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-9600T	6	6	2.3GHz	3.9GHz	9MB	DDR4-2666	Intel UHD Graphics 630

Operating System

Operating System

Windows® 10 IoT Enterprise with Microsoft® Teams room for Logitech

Graphics

Graphics^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 630	Integrated	Shared	1x HDMI®, 1x 2nd HDMI (internal DP to HDMI dongle), 1x DP	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP)	DirectX® 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via (2x HDMI and DP)

Chipset

Chipset

Intel Q370 chipset

Memory

Max Memory^[1]

Up to 8GB DDR4-2666

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-2666

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, 128GB M.2 2242 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-

RAID

No support

- Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical
None

Card Reader
No card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC233VB2 codec

Speakers
Single speaker, 1.5W x1

Power Supply

Power	Type	Efficiency	Key Features
135W	Adapter	88%	Autosensing

DESIGN

Input Device

Keyboard
No keyboard

Mouse
No mouse

Mechanical

Form Factor
Tiny (1L)

Dimensions (WxDxH)
179 x 183 x 34.5 / 37 mm with rubber feet (7.05 x 7.2 x 1.36 / 1.5 inches with rubber feet)

Weight
Around 1.32 kg (2.91 lbs)

Case Color
Black

Bays
No bays

Expansion Slots
Two M.2 slots (one for WLAN, one for SSD)

EOU
No support

Stand
No stand

IO Box
No IO box

Mounting
VESA mount bracket kit, supports VESA mount 75mm and 100mm

Others

Power adapter cage

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth^[1]

Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, Intel vPro technology support, M.2 card

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.1 Gen 1 (Always On and fast charge)
- 1x USB-C® 3.1 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 2x USB 3.1 Gen 1
- 2x USB 3.1 Gen 2
- 2x HDMI
- 1x DisplayPort™
- 1x Ethernet (RJ-45)

Optional Rear Ports

None

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable

No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

Intel vPro with Intel AMT 12.0

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]

3-year premier support service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

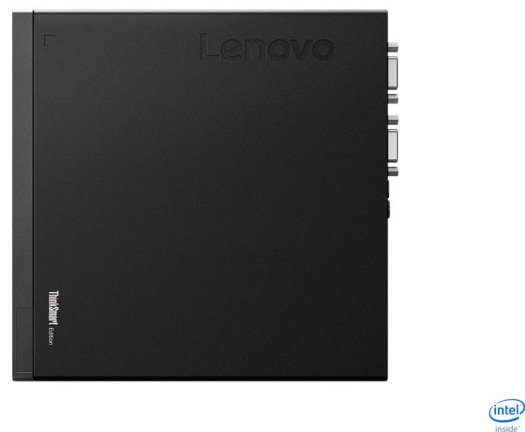
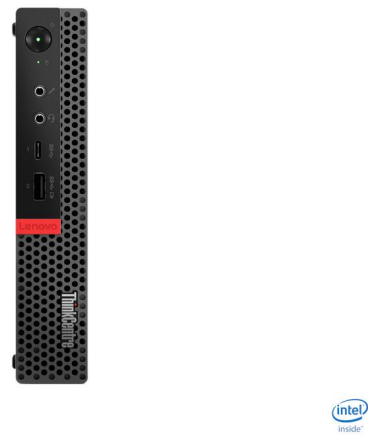
- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified
- RoHS compliant

Other Certifications

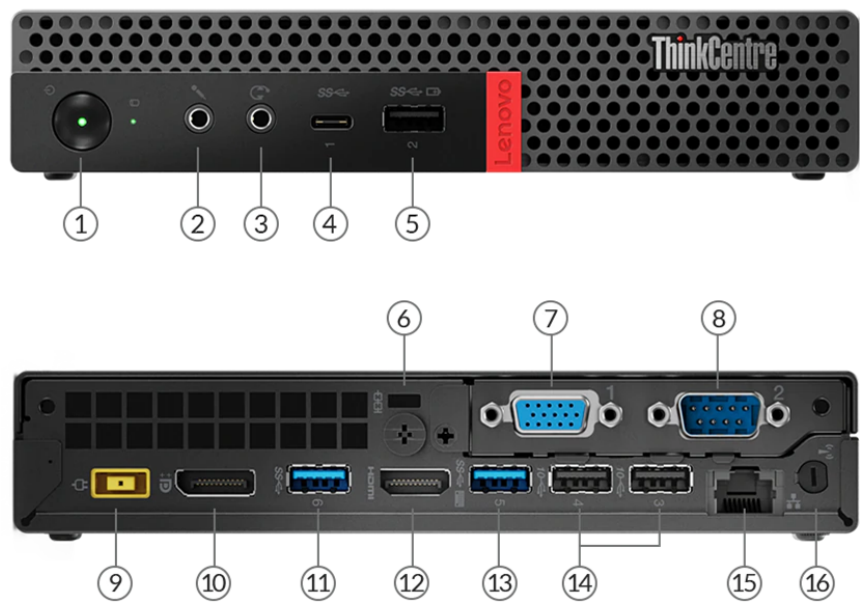
Mil-Spec Test

MIL-STD-810G military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

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OVERVIEW



1. Power button	9. Power connector
2. Microphone (3.5mm)	10. DisplayPort
3. Headphone / microphone combo jack (3.5mm)	11. USB 3.1 Gen 1
4. USB-C 3.1 Gen 1	12. HDMI
5. USB 3.1 Gen 1	13. USB 3.1 Gen 1
6. Kensington Security Slot	14. 2x USB 3.1 Gen 2
7. Optional port 1 (VGA is shown) *	15. Ethernet (RJ-45)
8. Optional port 2 (serial is shown) *	16. Wi-Fi antenna *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

9th Generation Intel® Core™ i5 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-9600T	6	6	2.3GHz	3.9GHz	9MB	DDR4-2666	Intel UHD Graphics 630

Operating System

Operating System

Windows® 10 IoT Enterprise with Microsoft® Teams room for Poly

Graphics

Graphics^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 630	Integrated	Shared	1x HDMI®, 1x 2nd HDMI (internal DP to HDMI dongle), 1x DP	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP)	DirectX® 12

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via (2x HDMI and DP)

Chipset

Chipset

Intel Q370 chipset

Memory

Max Memory^[1]

Up to 8GB DDR4-2666

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-2666

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

One drive, 128GB M.2 2242 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-

RAID

No support

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical
None

Card Reader
No card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC233VB2 codec

Speakers
Single speaker, 1.5W x1

Power Supply

Power	Type	Efficiency	Key Features
135W	Adapter	88%	Autosensing

DESIGN

Input Device

Keyboard
No keyboard

Mouse
No mouse

Mechanical

Form Factor
Tiny (1L)

Dimensions (WxDxH)
179 x 183 x 34.5 / 37 mm with rubber feet (7.05 x 7.2 x 1.36 / 1.5 inches with rubber feet)

Weight
Around 1.32 kg (2.91 lbs)

Case Color
Black

Bays
No bays

Expansion Slots
Two M.2 slots (one for WLAN, one for SSD)

EOU
No support

Stand
No stand

IO Box
No IO box

Mounting
VESA mount bracket kit, supports VESA mount 75mm and 100mm

Others

Power adapter cage

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth^[1]

Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, Intel vPro technology support, M.2 card

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.1 Gen 1 (Always On and fast charge)
- 1x USB-C® 3.1 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 2x USB 3.1 Gen 1
- 2x USB 3.1 Gen 2
- 2x HDMI
- 1x DisplayPort™
- 1x Ethernet (RJ-45)

Optional Rear Ports

None

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable

No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

Fingerprint Reader

No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

Intel vPro with Intel AMT 12.0

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]

Please consult with Poly

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

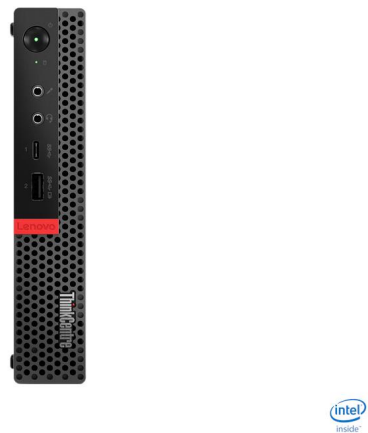
- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

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PERFORMANCE

Panel

- Panel**
In-Plane Switching (IPS)
- Display Size**
21.5 inches (546.1mm)
- Max View Area**
WxH: 476.1 x 267.8 mm (18.74 x 10.54 inches)
- Native Resolution**
1920x1080
- Aspect Ratio**
16:9
- Pixel Pitch**
0.24795 x 0.24795 mm
- DPI**
102.4 dpi
- Brightness**
250 nits
- Contrast Ratio**
1000:1
- Pixel Response Time**
4 ms (extreme mode) / 6 ms (typical mode) / 14 ms (off mode)
- Color Gamut**
72% NTSC
- Viewing Angle**
Horizontal: +/- 89°, vertical: +/- 89°
- Anti-glare**
Anti-glare

Multi-Media

- Camera**
720p, with dual microphone and LED indicator
- Microphone**
Dual array microphone
- Speakers**
Stereo speakers, 2W x2

Power Supply

Power Supply			
Power	Type	Efficiency	Key Features
90W	Adapter	88%	-

- Power Consumption**
19 watts typical, 32 watts max

DESIGN

Menu

- Presets and User Settings**
- Presets: 25

- User settings: 25

On Screen Display

On screen display with digital user controls (8 languages)

Display

Touchscreen

(Optional)10-point multi-touch, supports Wake on Touch. ONLY for model 10R0PAT1 and 10R0PAR1.

Mechanical

Compatible Tiny

P330 / P320 / M920(x) / M720 / M910(x) / M710 / M900(x) / M700 / M630e / M625 / M600 / M75q / M715 / M93p / M83 / M73 / M53 / Chromebox Tiny

Bezel Width

- Top / side: 2mm
- Bottom: 22.1mm

Buttons

- Power button
- Exit button
- Menu button
- Mode-switching button
- Brightness button

Cables

Undetachable 3-in-1 cable (power connector, USB [supports USB 3.1 Gen 1 / USB 2.0], DisplayPort™)

Case Color

Black

Dimensions (WxDxH)

Models	Dimensions
Models without stand	489 x 72.5 x 339 mm (19.26 x 2.85 x 13.35 inches)
Models with full function monitor stand	489.3 x 273.3 x 370.7 mm (19.26 x 10.76 x 14.59 inches)

Weight

Models	Weight
Models without stand	3.19 kg (7.01 lbs)
Models with full function monitor stand	5.34 kg (11.77 lbs)

Mounting

Supports VESA mount 100mm

Stand

Full function monitor stand, supports -5° to +30° tilt, left & right 45° swivel, up to 150mm lift, -5° to +90° pivot

In the Box

- TIO (monitor)
- Detachable stand
- Driver CD
- Power adapter
- Power cord
- Quick start and safety poster
- User's guide

CONNECTIVITY

Ports

Rear Ports

- 1x USB upstream port
- 1x DisplayPort
- 1x power connector

Left Ports^[1]

- 1x USB 3.1 Gen 1 (on TIO)
- Side ports offered by installed Tiny (on Tiny)

Notes:

1. The availability and version depends on the Tiny installed or the PC connected via USB upstream port

SERVICE

Warranty

Base Warranty

3-year customer carry-in or mail-in via rapid replacement service

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- TCO Certified 7.0
- TCO edge 2.0
- TUV
- ULE Gold
- RoHS compliant
- VOC
- WEEE

Other Certifications

Other Certifications

- FCC Class B
- ISO 9241-307
- TÜV Rheinland Eye Comfort Certification



PERFORMANCE

Panel

- Panel**
In-Plane Switching (IPS)
- Display Size**
21.5 inches (546.1mm)
- Max View Area**
WxH: 476.1 x 267.8 mm (18.74 x 10.54 inches)
- Native Resolution**
1920x1080
- Aspect Ratio**
16:9
- Pixel Pitch**
0.24795 x 0.24795 mm
- DPI**
102.4 dpi
- Brightness**
250 nits
- Contrast Ratio**
1000:1
- Pixel Response Time**
4 ms (extreme mode) / 6 ms (typical mode) / 14 ms (off mode)
- Color Gamut**
72% NTSC
- Viewing Angle**
Horizontal: +/- 89°, vertical: +/- 89°
- Anti-glare**
Anti-glare

Multi-Media

- Camera**
720p, with dual microphone and Think Shutter
- Microphone**
Dual array microphone
- Speakers**
Stereo speakers, 2W x2

Power Supply

Power Supply			
Power	Type	Efficiency	Key Features
90W	Adapter	88%	-

- Power Consumption**
14 watts typical, 25 watts max

DESIGN

Menu

- Presets and User Settings**
- Presets: 25

- User settings: 25

On Screen Display

On screen display with digital user controls (8 languages)

Display

Touchscreen

(Optional)Advanced In-cell Touch (AIT), supports 10-point touch. ONLY for model 11GTPAT1 and 11GTPAR1.

Mechanical

Compatible Tiny

P340 / P330 / P320 / M90q / M80q / M70q / M75q / M920(x) / M720 / M910(x) / M710 / M715 / M900(x) / M700 / M630e / M625 / M600 Tiny / M90n / M75n Nano (with TIO kit)

Bezel Width

- Top / side: 2mm
- Bottom: 22.1mm

Buttons

- Power button
- Exit button
- Menu button
- Mode-switching button
- Brightness button

Cables

Undetachable 3-in-1 cable (power connector, USB [supports USB 3.1 Gen 1 / USB 2.0], DisplayPort™)

Case Color

Black

Dimensions (WxDxH)

Models	Dimensions
Models with full function monitor stand	489 x 220.4 x 568.2 mm (19.26 x 8.68 x 22.37 inches)
Models without stand	489 x 65.3 x 339 mm (19.26 x 2.57 x 13.35 inches)

Weight

Models	Weight
Models without stand	3.41 kg (7.52 lbs)
Models with full function monitor stand	6.58 kg (14.51 lbs)

Mounting

Supports VESA mount 100mm

Stand

Full function monitor stand, supports -5° to +30° tilt, left & right 45° swivel, up to 150mm lift, -5° to +90° pivot

In the Box

- TIO (monitor)
- Detachable stand
- Driver CD
- Information flyer
- Power adapter
- Power cord
- User's guide

CONNECTIVITY

Ports

Rear Ports

- 1x USB upstream port
- 1x DisplayPort
- 1x power connector

Left Ports^[1]

- 1x USB 3.1 Gen 1 (on TIO)
- Side ports offered by installed Tiny (on Tiny)

Notes:

1. The availability and version depends on the Tiny installed or the PC connected via USB upstream port

SERVICE

Warranty

Base Warranty

3-year customer carry-in or mail-in via rapid replacement service

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 5
- GREENGUARD®
- TCO Certified 8.0
- TCO edge 2.0
- RoHS compliant
- WEEE

Other Certifications

Other Certifications

TÜV Rheinland Eye Comfort Certification



PERFORMANCE

Panel

- Panel
- In-Plane Switching (IPS)
- Display Size
- 23.8 inches (604.7mm)
- Max View Area
- WxH: 527 x 296.5 mm (20.75 x 11.67 inches)
- Native Resolution
- 1920x1080
- Aspect Ratio
- 16:9
- Pixel Pitch
- 0.2745 x 0.2745 mm
- DPI
- 92.6 dpi
- Brightness
- 250 nits
- Contrast Ratio
- 1000:1
- Pixel Response Time
- 4 ms (extreme mode) / 6 ms (typical mode) / 14 ms (off mode)
- Color Gamut
- 72% NTSC
- Viewing Angle
- Horizontal: +/- 89°, vertical: +/- 89°
- Anti-glare
- Anti-glare

Multi-Media

- Camera
- 1080p, with dual microphone and LED indicator
- Microphone
- Dual array microphone
- Speakers
- Stereo speakers, 2W x2

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
90W	Adapter	88%	-

- Power Consumption
- 19 watts typical, 32 watts max

DESIGN

Menu

- Presets and User Settings
- Presets: 25

- User settings: 25

On Screen Display

On screen display with digital user controls (8 languages)

Display

Touchscreen

(Optional)10-point multi-touch, supports Wake on Touch. ONLY for model 10QXPAT1 and 10QXPAT1.

Mechanical

Compatible Tiny

P330 / P320 / M920(x) / M720 / M910(x) / M710 / M900(x) / M700 / M630e / M625 / M600 / M75q / M715 / M93p / M83 / M73 / M53 / Chromebox Tiny

Bezel Width

- Top / side: 2mm
- Bottom: 22.1mm

Buttons

- Volume button
- Power button
- Exit button
- Menu button
- Mode-switching button
- Brightness button

Cables

Undetachable 3-in-1 cable (power connector, USB [supports USB 3.1 Gen 1 / USB 2.0], DisplayPort™)

Case Color

Black

Dimensions (WxDxH)

Models	Dimensions
Models with full function monitor stand	539.8 x 282.3 x 509.4 mm (21.25 x 11.11 x 20.06 inches)
Models without stand	539.8 x 72.5 x 367.6 mm (21.25 x 2.85 x 14.47 inches)

Weight

Models	Weight
Models without stand	3.61 kg (7.96 lbs)
Models with full function monitor stand	5.86 kg (12.92 lbs)

Mounting

Supports VESA mount 100mm

Stand

Full function monitor stand, supports -5° to +30° tilt, left & right 45° swivel, up to 110mm lift, 0° to +90° pivot

In the Box

- TIO 24 (monitor)
- Detachable stand
- Driver CD
- Power adapter
- Power cord
- Quick start and safety poster
- User's guide

CONNECTIVITY

Ports

Rear Ports

- 1x USB upstream port
- 1x DisplayPort

- 1x power connector

Left Ports^[1]

- 1x USB 3.1 Gen 1 (on TIO)
- Side ports offered by installed Tiny (on Tiny)

Notes:

1. The availability and version depends on the Tiny installed or the PC connected via USB upstream port

SERVICE

Warranty

Base Warranty

3-year carry-in or courier service

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- TCO Certified 7.0
- TCO edge 2.0
- TÜV
- ULE Gold
- RoHS compliant
- VOC
- WEEE

Other Certifications

Other Certifications

- FCC Class B
- ISO 9241-307
- TÜV Rheinland Eye Comfort Certification



PERFORMANCE

Panel

- Panel
- In-Plane Switching (IPS)
- Display Size
- 23.8 inches (604.52mm)
- Max View Area
- WxH: 527 x 296.5 mm (20.75 x 11.67 inches)
- Native Resolution
- 1920x1080
- Aspect Ratio
- 16:9
- Pixel Pitch
- 0.2745 x 0.2745 mm
- DPI
- 92.6 dpi
- Brightness
- 250 nits
- Contrast Ratio
- 1000:1
- Pixel Response Time
- 4 ms (extreme mode) / 6 ms (typical mode) / 14 ms (off mode)
- Color Gamut
- 72% NTSC
- Viewing Angle
- Horizontal: +/- 89°, vertical: +/- 89°
- Anti-glare
- Anti-glare

Multi-Media

- Camera
- 1080p, with dual microphone and Think Shutter
 - IR & RGB camera, with dual microphone and ThinkShutter
- Microphone
- Dual array microphone
- Speakers
- Stereo speakers, 2W x2

Power Supply

Power	Type	Efficiency	Key Features
90W	Adapter	88%	-

- Power Consumption
- 15 watts typical, 27 watts max

DESIGN

Menu

- Presets and User Settings

- Presets: 25
- User settings: 25

On Screen Display

On screen display with digital user controls (8 languages)

Display

Touchscreen

(Optional) Advanced In-cell Touch (AIT), supports 10-point touch (for model 11GCPAT1 and 11GCPAR1 only)

Mechanical

Compatible Tiny

P340 / P330 / P320 / M90q / M80q / M70q / M75q / M920(x) / M720 / M910(x) / M710 / M715 / M900(x) / M700 / M630e / M625 / M600 Tiny / M90n / M75n Nano (with TIO kit)

Bezel Width

- Top / side: 2mm
- Bottom: 22.1mm

Buttons

- Volume button
- Power button
- Exit button
- Menu button
- Mode-switching button
- Brightness button

Cables

Undetachable 3-in-1 cable (power connector, USB [supports USB 3.1 Gen 1 / USB 2.0], DisplayPort™)

Case Color

Black

Dimensions (WxDxH)

Models	Dimensions
Models with full function monitor stand	539.8 x 230.4 x 596.9 mm (21.25 x 9.07 x 23.5 inches)
Models without stand	539.8 x 65.3 x 367.6 mm (21.25 x 2.57 x 14.47 inches)

Weight

Models	Weight
Models with full function monitor stand	6.66 kg (14.68 lbs)
Models without stand	3.61 kg (7.96 lbs)

Mounting

Supports VESA mount 100mm

Stand

Full function monitor stand, supports -5° to +30° tilt, left & right 45° swivel, up to 150mm lift, -5° to +90° pivot

In the Box

- TIO (monitor)
- Detachable stand
- Driver CD
- Information flyer
- Power adapter
- Power cord
- User's guide

CONNECTIVITY

Ports

Rear Ports

- 1x USB upstream port

- 1x DisplayPort
- 1x power connector

Left Ports^[1]

- 1x USB 3.1 Gen 1 (on TIO)
- Side ports offered by installed Tiny (on Tiny)

Notes:

1. The availability and version depends on the Tiny installed or the PC connected via USB upstream port

SERVICE

Warranty

Base Warranty

3-year carry-in or courier service

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 5
- GREENGUARD®
- TCO edge 2.0
- RoHS compliant
- WEEE

Other Certifications

Other Certifications

TÜV Rheinland Eye Comfort Certification



PERFORMANCE

Panel

- Panel
- In-Plane Switching (IPS)
- Display Size
- 27 inches (685.8mm)
- Max View Area
- WxH: 596.7 x 335.7 mm (23.49 x 13.22 inches)
- Native Resolution
- 2560x1440
- Aspect Ratio
- 16:9
- Pixel Pitch
- 0.2331 x 0.2331 mm
- DPI
- 109 dpi
- Brightness
- 350 nits
- Contrast Ratio
- 1000:1
- Pixel Response Time
- 4 ms (extreme mode) / 6 ms (typical mode) / 14 ms (off mode)
- Color Gamut
- 99% sRGB
- Viewing Angle
- Horizontal: +/- 89°, vertical: +/- 89°
- Anti-glare
- Anti-glare

Multi-Media

- Camera
- RGBIR camera, with dual microphone , Think Shutter, LED indicator. Supports Window Hello and Facial Recognition
- Microphone
- Dual array microphone
- Speakers
- Stereo speakers, 2W x2

Power Supply

Power Supply			
Power	Type	Efficiency	Key Features
170W	Adapter	88%	-

- Power Consumption
- 37 watts typical, 57 watts max

DESIGN

Menu

- Presets and User Settings
- Presets: 25

- User settings: 25

On Screen Display

On screen display with digital user controls (8 languages)

Display

Touchscreen

Non-touch

Mechanical

Compatible Tiny

ThinkCentre® Tiny, ThinkCentre Nano, and ThinkStaion Tiny

Bezel Width

- Top / side: 2mm
- Bottom: 23.3mm

Buttons

- Volume button
- Power button
- Exit button
- Menu button
- Mode-switching button
- Brightness button

Cables

Undetachable 3-in-1 cable (power connector, USB [supports USB 3.1 Gen 1 / USB 2.0], DisplayPort™)

Case Color

Black

Dimensions (WxDxH)

Models	Dimensions
Models with full function monitor stand	614 x 329 x 554.25 mm (24.17 x 12.95 x 21.82 inches)
Models without stand	614 x 73.89 x 413.1 mm (24.17 x 2.91 x 16.26 inches)

Weight

Models	Weight
Models without stand	4.90 kg (10.82 lbs)
Models with full function monitor stand	7.95 kg (17.53 lbs)

Mounting

Supports VESA mount 100mm

Stand

Full function monitor stand, supports -5° to +30° tilt, left & right 45° swivel, up to 110mm lift, -5° to +90° pivot

In the Box

- TIO 27 (monitor)
- Detachable stand
- Power adapter
- Power cord
- Reference and driver CD

CONNECTIVITY

Ports

Rear Ports

- 1x USB upstream port
- 1x HDMI®-in
- 1x DisplayPort
- 1x power connector

Left Ports^[1]

- 2x USB 3.1 Gen 1 (on TIO)
- Side ports offered by installed Tiny (on Tiny)
- 1x headphone / microphone combo jack (on TIO)

Notes:

1. The USB ports are enabled by installing a Tiny or connecting USB upstream port; the audio port is enabled by installing a Tiny or connecting USB upstream, DisplayPort(in), or HDMI(in) port

SERVICE

Warranty

Base Warranty

3-year product exchange service (US and EMEA) or customer carry-in service (EMEA)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- TCO edge 2.0
- TUV
- ULE Gold
- RoHS compliant
- VOC
- WEEE

Other Certifications

Other Certifications

- ISO 9241-307
- TÜV Rheinland Eye Comfort Certification



PERFORMANCE

Panel

- Panel**
- In-Plane Switching (IPS)
- Display Size**
- 21.5 inches (546.1mm)
- Max View Area**
- WxH: 476.1 x 267.8 mm (18.74 x 10.54 inches)
- Native Resolution**
- 1920x1080
- Aspect Ratio**
- 16:9
- Pixel Pitch**
- 0.24795 x 0.24795 mm
- DPI**
- 102.4 dpi
- Brightness**
- 200 nits (Minimum), 250 nits (Typical)
- Contrast Ratio**
- 1000:1
- Pixel Response Time**
- 4 ms (extreme mode) / 6 ms (typical mode) / 14 ms (off mode)
- Color Gamut**
- 99% sRGB
- Viewing Angle**
- Horizontal: +/- 89°, vertical: +/- 89°

Power Supply

- Power Consumption**
- 15 watts typical, 48 watts max

DESIGN

Mechanical

- Compatible Tiny**
- ThinkCentre® Tiny, ThinkStation® Tiny
- Bezel Width**
- Side: 2mm
- Buttons**
- Power button
 - Input Source Switch button
 - Menu stick
- Cables**
- Undetachable 3-in-1 cable, embedded into TIO, connects to the I/Os of Tiny (Power connector, USB [supports USB 3.1 Gen 1 / USB 2.0], DisplayPort™™)
- Case Color**
- Raven black
- Dimensions (WxDxH)**

Models	Dimensions
--------	------------

Models with TIO Flex Stand	494.41 x 489.3 x 223 mm (19.46 x 19.3 x 7.87 inches)
----------------------------	--

Weight

Models	Weight
Models with TIO Flex stand	Around 6.05 kg (13.34 lbs)

Mounting

Supports VESA mount 100mm

Stand

- TIO Flex stand, supports -5° to +23° tilt, up to 50mm lift
- Build in DisplayPort connector for Tiny
- Build in USB-A connector for Tiny
- Build in DisplayPort cable for monitor
- Build in USB-B cable for monitor

In the Box

- Information flyer
- Manual
- Monitor Head
- Monitor Stand
- Power cord

CONNECTIVITY

Ports

Rear Ports

- 1x USB 3.2 Gen 1
- 1x USB-B
- 1x VGA
- 1x HDMI® 1.4
- 1x DisplayPort 1.2

Top Ports

1x USB 3.2 Gen 1

Left Ports

- 2x USB 3.2 Gen 1
- 1x headphone (3.5mm)

SERVICE

Warranty

Base Warranty^[1]

- TIO Flex stand: 1-year CRU warranty
- Monitor: up to 3-year warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

CERTIFICATIONS

Green Certifications

Green Certifications

- ENERGY STAR® Certified
- TCO Certified
- RoHS compliant

Other Certifications

Other Certifications

TÜV Rheinland® Eye Comfort Certification

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PERFORMANCE

Panel

Panel

In-Plane Switching (IPS)

Display Size

27 inches (685.8mm)

Max View Area

WxH: 596.7 x 3356.3 mm (23.49 x 13.24 inches)

Native Resolution

1920x1080

Aspect Ratio

16:9

Pixel Pitch

0.3114 x 0.3114 mm

DPI

82 dpi

Brightness

250 nits (Minimum), 300 nits (Typical)

Contrast Ratio

1000:1

Pixel Response Time

4 ms (extreme mode) / 6 ms (typical mode) / 14 ms (off mode)

Color Gamut

99% sRGB

Viewing Angle

Horizontal: +/- 89°, vertical: +/- 89°

Power Supply

Power Consumption

24 watts typical, 65 watts max

DESIGN

Mechanical

Compatible Tiny

ThinkCentre® Tiny, ThinkStation® Tiny

Bezel Width

- Side: 2mm
- Top / Bottom: 2mm / 17.6mm

Buttons

- Power button
- Input Source Switch button
- Menu stick

Cables

Undetachable USB-A to USB-B cable, undetachable DP to DP cable, embedded into stand

Case Color

Raven black

Dimensions (WxDxH)

Models	Dimensions
--------	------------

Models with TIO Flex Stand	551.33 x 223.1 x 611.9 mm (21.71 x 8.78 x 24.09 inches)
----------------------------	---

Weight

Models	Weight
Models with TIO Flex stand	Around 7.9 kg (17.42 lbs)

Mounting

Supports VESA mount 100mm

Stand

- TIO Flex stand, supports -5° to +23° tilt, up to 50mm lift
- Build in DisplayPort™ connector for Tiny
- Build in USB-A connector for Tiny
- Build in DisplayPort cable for monitor
- Build in USB-B cable for monitor

In the Box

- Information flyer
- Manual
- Monitor Head
- Monitor Stand
- Power cord

CONNECTIVITY

Ports

Rear Ports

- 1x USB 3.2 Gen 1
- 1x USB-B
- 1x VGA
- 1x HDMI® 1.4
- 1x DisplayPort 1.2
- 1x power connector

Top Ports

1x USB 3.2 Gen 1

Left Ports

- 2x USB 3.2 Gen 1
- 1x headphone (3.5mm)

SERVICE

Warranty

Base Warranty^[1]

- TIO Flex stand: 1-year CRU warranty
- Monitor: up to 3-year warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- TCO Certified
- TCO edge
- RoHS compliant

Other Certifications

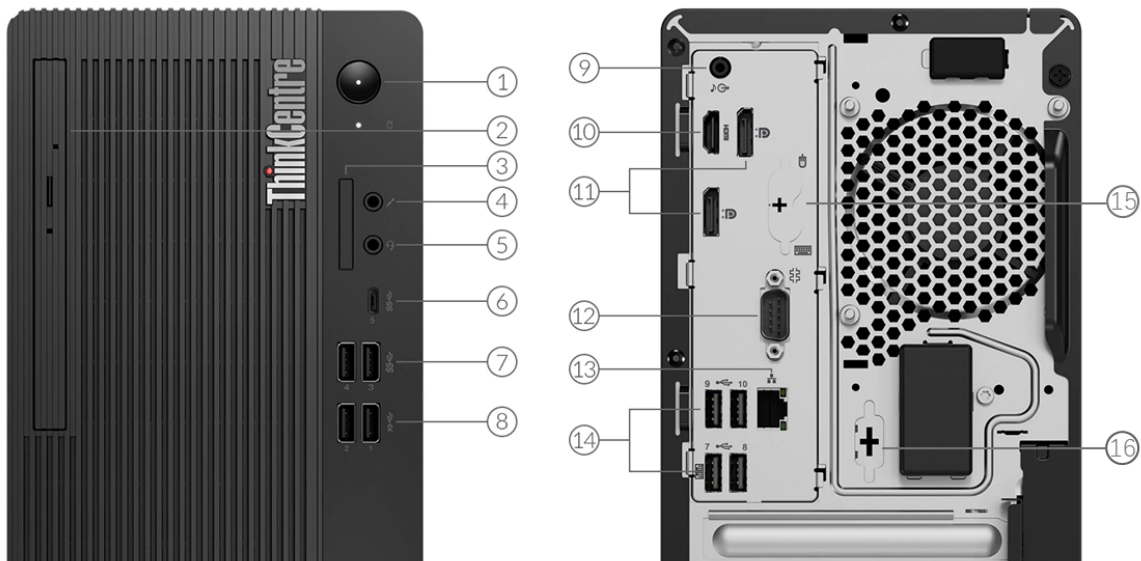
Other Certifications

- TÜV Rheinland® Eye Comfort Certification
- TÜV Rheinland Eyesafe® Display
- TÜV Rheinland Low Blue Light (Hardware Solution)

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OVERVIEW



1. Power button	9. Line-out (3.5mm)
2. Optical drive *	10. HDMI
3. Card reader *	11. 2x DisplayPort
4. Microphone (3.5mm)	12. Serial
5. Headphone / microphone combo jack (3.5mm)	13. Ethernet (RJ-45)
6. USB-C 3.2 Gen 1	14. 4x USB 2.0
7. 2x USB 3.2 Gen 1	15. 2x PS/2 ports (keyboard / mouse) *
8. 2x USB 3.2 Gen 2	16. Serial *

- Notes:
- Ports with * are only available on selected models
 - More ports are available through the optional expansion cards (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 10th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5900	2	2	3.4GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5905	2	2	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5920	2	2	3.5GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6400	2	4	4.0GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6500	2	4	4.1GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6600	2	4	4.2GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400F	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	-
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-10700F	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	-
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900F	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	-

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	1x HDMI®, 2x DP	1920x1080@60Hz(HDMI), 4096x2304@60Hz(DP)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x HDMI, 2x DP	1920x1080@60Hz(HDMI), 4096x2304@60Hz(DP)	DirectX 12
AMD Radeon™ 520	Discrete	2GB GDDR5	2x DP 1.2	4096x2160@60Hz(DP)	DirectX 12
AMD Radeon RX 550X	Discrete	4GB GDDR5	1x HDMI 2.0, 1x VGA, 1x DP 1.4	4096x2160@60Hz(HDMI), 2048x1536@85Hz(VGA), 3840x2160@60Hz(DP)	DirectX 12

NVIDIA® GeForce GT 730	Discrete	2GB GDDR5	1x VGA, 1x HDMI 1.4	2048x1536@75Hz(VGA), 3840x2160@30Hz(HDMI)	DirectX 12
------------------------	----------	-----------	---------------------	---	------------

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support^[1]

Supports up to 3 independent displays via onboard ports (HDMI and 2x DisplayPort™), more displays support via discrete graphics

Notes:

1. Onboard video ports are only available for the models with integrated graphics

Chipset

Chipset

Intel H470 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-2933

Memory Slots

Four DDR4 DIMM slots, dual-channel capable

Memory Type^{**}

- DDR4-2666
- DDR4-2933

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to three drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB each
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB
- Optional Intel Optane™ Memory, M.2

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical^{**}

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

Speakers

Single speaker, 2W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
180W	Fixed	85%	-
260W	Fixed	85%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
380W	Fixed	92%	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

Tower (13.6L)

Dimensions (WxDxH)

145 x 296 x 346 mm (5.7 x 11.7 x 13.6 inches)

Packaging Dimensions (WxDxH)

245 x 395 x 530 mm (9.65 x 15.55 x 20.87 inches)

Weight

Around 4.8 kg (10.6 lbs)

Packaging Weight

All models: 8.3 kg (18.29 lbs)

Case Color

Black

Bays

- 1x 2.5" disk bay (optional, or bay comes with disk)
- 1x 3.5" disk bay
- 1x slim ODD bay

Expansion Slots

- One PCIe 3.0 x1, full-height (length < 215mm)
- One PCIe 3.0 x16, full-height (length < 215mm)
- Two M.2 slots (one for WLAN, one for SSD)

Others

- (Optional) Dust filter
- Supports Smart Power On

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Intel Ethernet Connection I219-V, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet**

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- No optional Ethernet

WLAN + Bluetooth®^[1]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9462, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Front Ports**

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

- 1x card reader
- None

Rear Ports^[2]

- 4x USB 2.0
- 1x HDMI
- 2x DisplayPort
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports***

- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;

USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s

2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to HDMI cable
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

Non-vPro

SERVICE

Warranty

Base Warranty**[]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

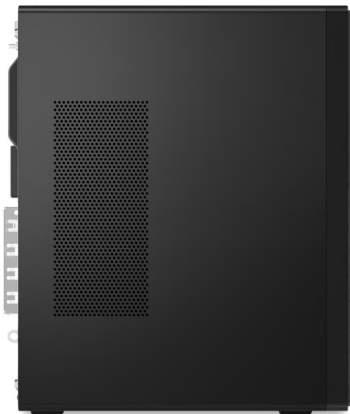
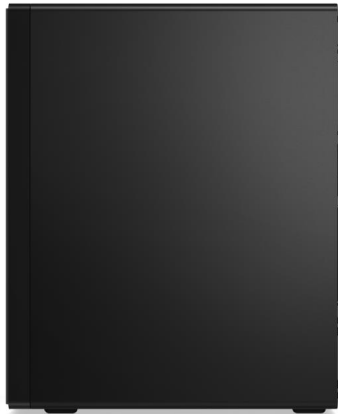
- EPEAT™ Gold
- EPEAT Silver
- ENERGY STAR® 8.0 (only available for MT 11D9/11DA)
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant

Other Certifications

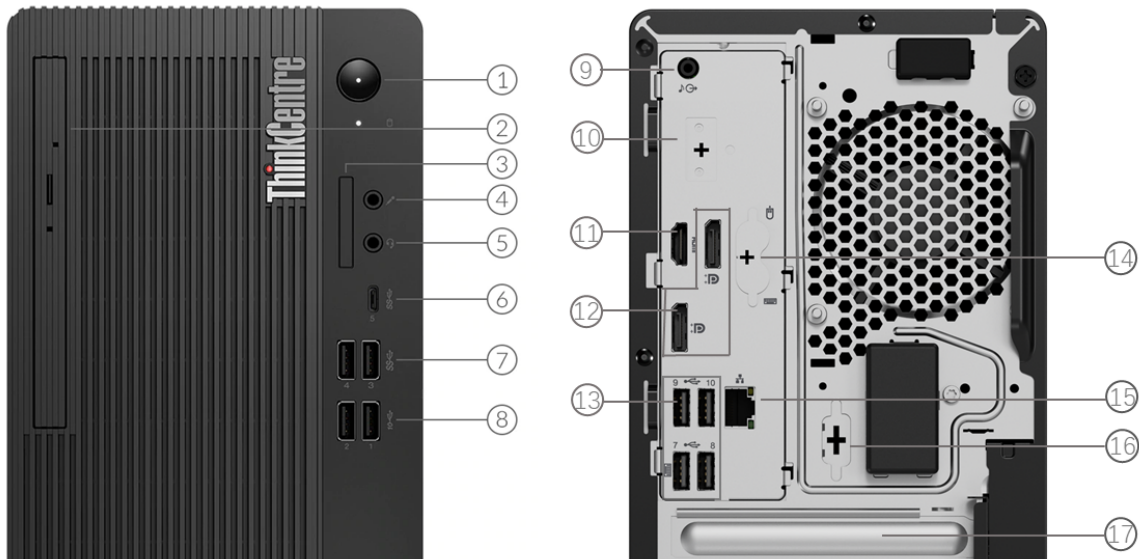
Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Power button	10. Flex IO *
2. Optical drive *	11. HDMI 2.1 TMDS
3. Card reader *	12. 2x DisplayPort 1.4
4. Microphone (3.5mm)	13. 4x USB 2.0
5. Headphone / microphone combo jack (3.5mm)	14. 2x PS/2 ports (keyboard / mouse) *
6. USB-C 3.2 Gen 1	15. Ethernet (RJ-45)
7. 2x USB 3.2 Gen 1	16. Serial *
8. 2x USB 3.2 Gen 2	17. Optional ports on expansion cards *
9. Line-out (3.5mm)	

- Notes:
- Ports with * are only available on selected models
 - More ports are available through the optional expansion cards (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

Intel® Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Pentium Gold G7400	2	4	3.7GHz	-	6MB	Intel UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	Intel UHD Graphics 730
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	Intel UHD Graphics 730
Core i5-12400F	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	-
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	Intel UHD Graphics 770
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	Intel UHD Graphics 770
Core i7-12700F	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	-
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	Intel UHD Graphics 770
Core i9-12900F	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	-

Operating System

Operating System

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 IoT Enterprise LTSC 2021
- Ubuntu Linux
- No operating system

Graphics

Graphics^[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 710	Integrated	Shared	2x DP 1.4 HBR2, 1x HDMI® 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C®)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX® 12	-
Intel UHD graphics 730	Integrated	Shared	2x DP 1.4 HBR2, 1x HDMI 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX 12	-

Intel UHD graphics 770	Integrated	Shared	2x DP 1.4 HBR2, 1x HDMI 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX 12	-
AMD Radeon™ RX 6400	Discrete	4GB GDDR6	1x HDMI 2.1, 1x DP 1.4	7680x4320@60Hz(HDMI), 7680x4320@60Hz(DP)	DirectX 12, OpenGL 4.6	-
AMD Radeon RX 6500XT	Discrete	4GB GDDR6	1x HDMI 2.1, 1x DP 1.4	7680x4320@60Hz(HDMI), 7680x4320@60Hz(DP)	DirectX 12, OpenGL 4.6	-

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays via onboard ports (2x DP, 1x HDMI, and 1x optional Flex IO), more displays support via discrete graphics

Notes:

1. Onboard video ports are only available for the models with integrated graphics

Chipset

Chipset

Intel Q670 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-3200

Memory Slots

Four DDR4 DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}

Up to three drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB each
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB

Storage Type

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-	Opal
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	-	Opal2

RAID

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. The max capacity of SSD/HDD is based on the test results with current Lenovo SSD/HDD offerings. The system may support more capacity as the technology develops.

Removable Storage

Optical

- DVD-ROM, SATA connector, slim (9.0mm)
- DVD burner (DVD±RW), SATA connector, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC897Q-CG codec

Speakers

Single speaker, 2W x1

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
180W	Fixed	85%	100V - 240V
260W	Fixed	90%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
380W	Fixed	92%	100-240V, 50-60Hz

DESIGN

Input Device

Keyboard

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Mouse (PS/2 connector), black (only available via special bid)
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

Tower (13.6L)

Dimensions (WxDxH)

145 x 296 x 346 mm (5.7 x 11.7 x 13.6 inches)

Weight^[1]

Around 5.9 kg (13.0 lbs)

Case Color

Black

Bays^[2]

- 1x 2.5" disk bay
- 1x 3.5" disk bay
- 1x slim ODD bay

Expansion Slots

- One PCIe 4.0 x16, full-height, length ≤ 209mm, height ≤ 117.5mm
- Two PCIe 3.0 x1, full-height, length ≤ 185mm, height ≤ 110mm
- Two M.2 slots (one for WLAN, one for SSD)

EOU

Toolless cover, disk, optical, extension card assembly / removal

Stand

No stand

Others

- (Optional) Dust filter
- (Optional) Smart Cable (USB-A to USB-C)
- Supports Smart Power On

Notes:

1. Weight may vary by configuration.
2. 2.5" HDD tray is optional, or comes with 2.5 HDD. 3.5" bay supports 2.5" / 3.5" HDD, 3.5" to 2.5 converter comes with 2nd 2.5" HDD.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- 2.5 Gigabit Ethernet, Realtek RTL8125BGS, 1x RJ-45, PCIe x1
- No optional Ethernet

WLAN + Bluetooth^[1]

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 1 (15W charging)
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

1x card reader

Rear Ports^[2]

- 4x USB 2.0
- 1x HDMI 2.1 TMDS
- 2x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports

- 1x USB-C 3.2 Gen 1 with DisplayPort function and 5V@3A charging (Flex IO)
- 1x HDMI 2.1 TMDS (Flex IO)
- 1x VGA (Flex IO)
- 1x DP 1.2 (Flex IO)
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 1x serial
- 1x 2nd serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS (Level 2)
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Essentials
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE**Warranty****Base Warranty^[1]**

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL**Operating Environment****Temperature**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS**Green Certifications****Green Certifications**

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications**Other Certifications**

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation, Contamination by Fluids, Salt Fog)

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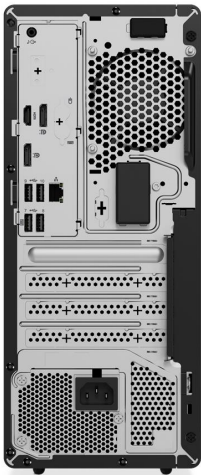
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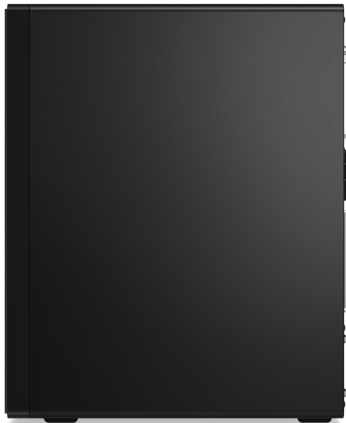
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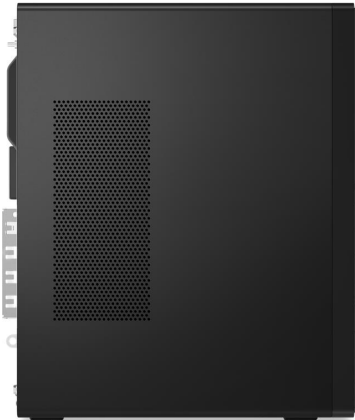
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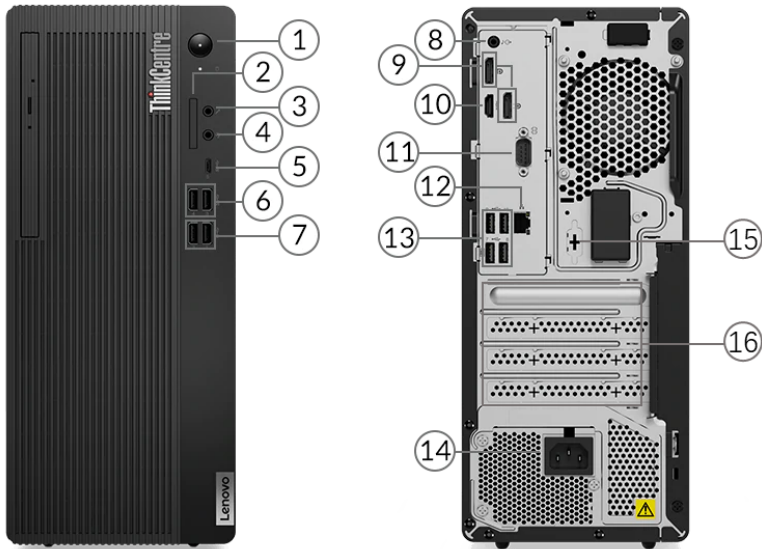


intel



intel

OVERVIEW



1. Power button	9. 2x DisplayPort
2. Card reader *	10. HDMI
3. Microphone (3.5mm)	11. Serial
4. Headphone / microphone combo jack (3.5mm)	12. Ethernet (RJ-45)
5. USB-C 3.2 Gen 1	13. 4x USB 2.0
6. 2x USB 3.2 Gen 1	14. Power connector
7. 2x USB 3.2 Gen 2	15. Serial *
8. Line-out (3.5mm)	16. Optional ports on expansion cards *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

AMD Athlon™ or AMD Ryzen™ 3 / 5 / 7 / 9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Athlon Silver 3050GE	2	4	3.4GHz	3.4GHz	1MB L2 / 4MB L3	DDR4-2666	AMD Radeon™ Graphics
AMD Athlon Gold PRO 3150G	4	4	3.5GHz	3.9GHz	2MB L2 / 4MB L3	DDR4-2933	AMD Radeon Graphics
AMD Ryzen 3 3200G	4	4	3.6GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-2933	AMD Radeon Vega 8 Graphics
AMD Ryzen 3 4300G	4	8	3.8GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 3 5300G	4	8	4.0GHz	4.2GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 3 PRO 4350G	4	8	3.8GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 3 PRO 5350G	4	8	4.0GHz	4.2GHz	2MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 4600G	6	12	3.7GHz	4.2GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 5600G	6	12	3.9GHz	4.4GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 3350G	4	8	3.6GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-2933	AMD Radeon Vega 11 Graphics
AMD Ryzen 5 PRO 3400G	4	8	3.7GHz	4.2GHz	2MB L2 / 4MB L3	DDR4-2933	AMD Radeon Vega 11 Graphics
AMD Ryzen 5 PRO 3600	6	12	3.6GHz	4.2GHz	3MB L2 / 32MB L3	DDR4-3200	-
AMD Ryzen 5 PRO 4650G	6	12	3.7GHz	4.2GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650G	6	12	3.9GHz	4.4GHz	3MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 4700G	8	16	3.6GHz	4.4GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 5700G	8	16	3.8GHz	4.6GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 3700	8	16	3.6GHz	4.4GHz	4MB L2 / 32MB L3	DDR4-3200	-
AMD Ryzen 7 PRO 4750G	8	16	3.6GHz	4.4GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5750G	8	16	3.8GHz	4.6GHz	4MB L2 / 16MB L3	DDR4 3200	AMD Radeon Graphics
AMD Ryzen 9 PRO 3900	12	24	3.1GHz	4.3GHz	6MB L2 / 64MB L3	DDR4-3200	-

Operating System

Operating System**

- Windows® 11 Pro 64

- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1][2]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
AMD Radeon Graphics	Integrated	Shared	2x DisplayPort™ 1.4, 1x HDMI® 1.4	4096x2160@60Hz(DP), 4096x2160@24Hz(HDMI)	DirectX® 12
AMD Radeon Vega 8 Graphics	Integrated	Shared	2x DisplayPort 1.4, 1x HDMI 1.4	4096x2160@60Hz(DP), 4096x2160@24Hz(HDMI)	DirectX 12
AMD Radeon Vega 11 Graphics	Integrated	Shared	2x DisplayPort 1.4, 1x HDMI 1.4	4096x2160@60Hz(DP), 4096x2160@24Hz(HDMI)	DirectX 12
AMD Radeon 520	Discrete	2GB GDDR5	2x DP 1.2	4096x2160@60Hz(DP)	DirectX 12
AMD Radeon RX 550X	Discrete	4GB GDDR5	1x HDMI 2.0, 1x VGA, 1x DP 1.4	4096x2160@60Hz(HDMI), 2048x1536@85Hz(VGA), 3840x2160@60Hz(DP)	DirectX 12
AMD Radeon RX 6400	Discrete	4GB GDDR6	1x HDMI 2.1, 1x DP 1.4	7680x4320@60Hz(HDMI), 7680x4320@60Hz(DP)	DirectX 12, OpenGL 4.6

- Notes:
1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)
 2. AMD Radeon 520 is not available for MT 11RB / 11RC / 11RD / 11RE

Monitor Support

Monitor Support

Supports up to 3 independent displays via onboard ports (HDMI and 2x DisplayPort), more displays support via discrete graphics

Chipset

Chipset

AMD PRO 565 chipset

Memory[1]

Max Memory[1][2]

Up to 128GB DDR4-3200

Memory Slots

Four DDR4 DIMM slots, dual-channel capable

Memory Type**[3]

- DDR4-1866
- DDR4-2133
- DDR4-2400
- DDR4-2666
- DDR4-3200

- Notes:
1. Recommend to choose the models with more than 4GB for better performance and experience
 2. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
 3. Installed memory is actually 3200MHz, but may run at 1866MHz, 2133MHz, 2400MHz or 2666MHz depending on the memory support capability of processor

Storage

Storage Support^[1]

- Up to three drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 1x M.2 SSD
- 2.5" HDD up to 1TB each
 - 3.5" HDD up to 2TB
 - M.2 SSD up to 2TB

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal

RAID

RAID 0/1 support for HDDs (RAID preset only available via special bid model)

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical^{**}

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

Speakers

- Single speaker, 2W x1
- No speakers

Power Supply

Power Supply^{**}

Power	Type	Efficiency	Key Features
180W	Fixed	85%	-
260W	Fixed	85%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz

DESIGN

Input Device

Keyboard^{**}

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical**Form Factor**

Tower (13.6L)

Dimensions (WxDxH)

145 x 296 x 346 mm (5.7 x 11.7 x 13.6 inches)

Weight

Around 4.8 kg (10.6 lbs)

Case Color

Black

Bays

- 1x 2.5" disk bay (bay comes with disk)
- 1x 3.5" disk bay
- 1x slim ODD bay

Expansion Slots

- One PCIe 3.0 x1, full-height (length < 215mm)
- One PCIe 3.0 x16, full-height (length < 215mm)
- Two M.2 slots (one for WLAN, one for SSD)

EOU

EOU design for chassis open, M.2 SSD, ODD, memory, and PCIe extension card

Others

- (Optional) Dust filter
- Supports Smart Power On

CONNECTIVITY**Network^[1]****Onboard Ethernet****

- Gigabit Ethernet, Realtek RTL8111EPV, 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Realtek RTL8111HN, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet^[2]**

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Bitland RTL8111FP, 1x RJ-45, PCIe x1
- No optional Ethernet

WLAN + Bluetooth®^[3]**

- Mediatek Wi-Fi® 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- No WLAN and Bluetooth

Notes:

1. This system does not support Power Over Ethernet (PoE). If the system is used in a PoE environment, then a Network Isolator is required to prevent possible damage to the system, PoE equipment, or both.
2. RTL8111FP is not available for AP countries.
3. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Front Ports**

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

- 1x card reader
- None

Rear Ports^[2]

- 4x USB 2.0
- 1x HDMI
- 2x DisplayPort
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports^{***}

- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- 1x serial
- 1x parallel
- None

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable**^{***}

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to DVI dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse

- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- DASH 1.2
- Non-DASH

Notes:

1. DASH 1.2 is an optional feature for the selected MTs, MT 11W5/11W6/11W7/11W8 do not support DASH.

SERVICE

Warranty

Base Warranty^{[1]}**

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications^[1]

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant

Notes:

1. ENERGY STAR 8.0 and EPEAT are only available for MT 11KB/11KC

Other Certifications

Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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AMD



AMD



AMD



AMD

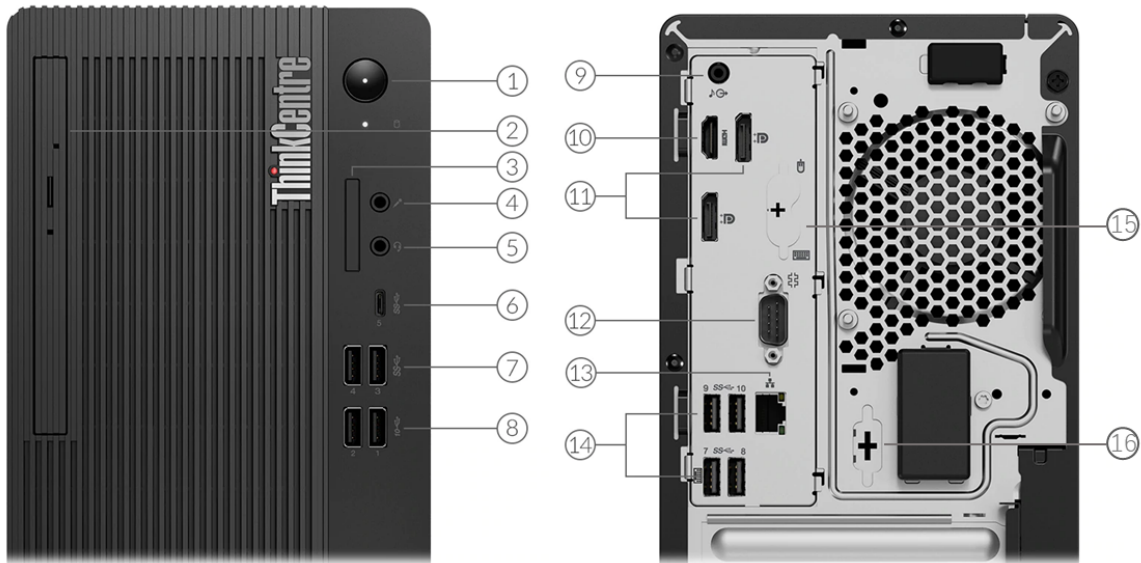


AMD



AMD

OVERVIEW



1. Optical drive *	9. Line-out (3.5mm)
2. Power button	10. HDMI
3. Card reader *	11. 2x DisplayPort
4. Microphone (3.5mm)	12. Serial
5. Headphone / microphone combo jack (3.5mm)	13. Ethernet (RJ-45)
6. USB-C 3.2 Gen 1	14. 4x USB 3.2 Gen 1
7. 2x USB 3.2 Gen 1	15. 2x PS/2 ports (keyboard / mouse) *
8. 2x USB 3.2 Gen 2	16. Serial *

- Notes:
- Ports with * are only available on selected models
 - More ports are available through the optional expansion cards (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 10th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Celeron G5900	2	2	3.4GHz	-	2MB	Intel UHD Graphics 610
Celeron G5905	2	2	3.5GHz	-	4MB	Intel UHD Graphics 610
Celeron G5920	2	2	3.5GHz	-	2MB	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	Intel UHD Graphics 610
Pentium Gold G6400	2	4	4.0GHz	-	4MB	Intel UHD Graphics 610
Pentium Gold G6500	2	4	4.1GHz	-	4MB	Intel UHD Graphics 630
Pentium Gold G6600	2	4	4.2GHz	-	4MB	Intel UHD Graphics 630
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	Intel UHD Graphics 630
Core i5-10400F	6	12	2.9GHz	4.3GHz	12MB	-
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	Intel UHD Graphics 630
Core i7-10700F	8	16	2.9GHz	4.8GHz	16MB	-
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	Intel UHD Graphics 630
Core i9-10900F	10	20	2.8GHz	5.2GHz	20MB	-

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	1x HDMI®, 2x DP	1920x1080@60Hz(HDMI), 4096x2304@60Hz(DP)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x HDMI, 2x DP	1920x1080@60Hz(HDMI), 4096x2304@60Hz(DP)	DirectX 12
AMD Radeon™ 520	Discrete	2GB GDDR5	2x DP 1.2	4096x2160@60Hz(DP)	DirectX 12
AMD Radeon RX 550X	Discrete	4GB GDDR5	1x HDMI 2.0, 1x VGA, 1x DP 1.4	4096x2160@60Hz(HDMI), 2048x1536@85Hz(VGA), 3840x2160@60Hz(DP)	DirectX 12

NVIDIA® GeForce GT 730	Discrete	2GB GDDR5	1x VGA, 1x HDMI 1.4	2048x1536@75Hz(VGA), 3840x2160@30Hz(HDMI)	DirectX 12
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Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support^[1]

Supports up to 3 independent displays via onboard ports (HDMI and 2x DisplayPort™), more displays support via discrete graphics

Notes:

1. Onboard video ports are only available for the models with integrated graphics

Chipset

Chipset

Intel Q470 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-2933

Memory Slots

Four DDR4 DIMM slots, dual-channel capable

Memory Type^{**}

- DDR4-2666
- DDR4-2933

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to three drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB each
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB
- Optional Intel Optane™ Memory, M.2

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

RAID

RAID 0/1 support for HDDs (RAID preset only available via special bid model)

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical**

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

Speakers

Single speaker, 2W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
180W	Fixed	85%	-
260W	Fixed	85%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
380W	Fixed	92%	-

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

Tower (13.6L)

Dimensions (WxDxH)

145 x 296 x 346 mm (5.7 x 11.7 x 13.6 inches)

Packaging Dimensions (WxDxH)

245 x 395 x 530 mm (9.65 x 15.55 x 20.87 inches)

Weight

Around 4.8 kg (10.6 lbs)

Packaging Weight

8.3 kg (18.29 lbs)

Case Color

Black

Bays

- 1x 2.5" disk bay (optional, or bay comes with disk)
- 1x 3.5" disk bay

- 1x slim ODD bay

Expansion Slots

- One PCIe 3.0 x1, full-height (length < 215mm)
- One PCIe 3.0 x4, full-height (length < 215mm)
- One PCIe 3.0 x16, full-height (length < 215mm)
- One dummy slot, only bracket for optional port extension
- Two M.2 slots (one for WLAN, one for SSD)

Others

- (Optional) Dust filter
- Supports Smart Power On

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet**

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- No optional Ethernet

WLAN + Bluetooth®[1]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

- 1x card reader
- None

Rear Ports^[2]

- 4x USB 3.2 Gen 1
- 1x HDMI
- 2x DisplayPort
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports***

- 2x USB 2.0 (via 2-port adapter)
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file

attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;

USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;

USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;

USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;

Thunderbolt™ 3/4: 40 Gbit/s

2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^{[1][2]}

- Intel vPro with Intel AMT 14.0
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]**

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL**Operating Environment****Temperature**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS**Green Certifications****Green Certifications^[1]**

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant

Notes:

1. ENERGY STAR 8.0 and EPEAT are only available for MT 11CS/11CT

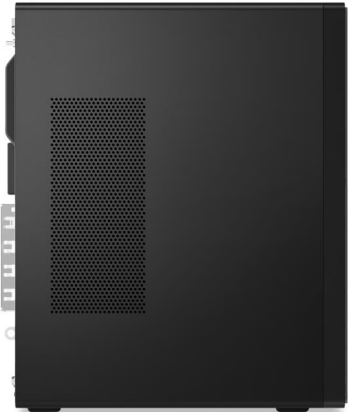
Other Certifications**Other Certifications**

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

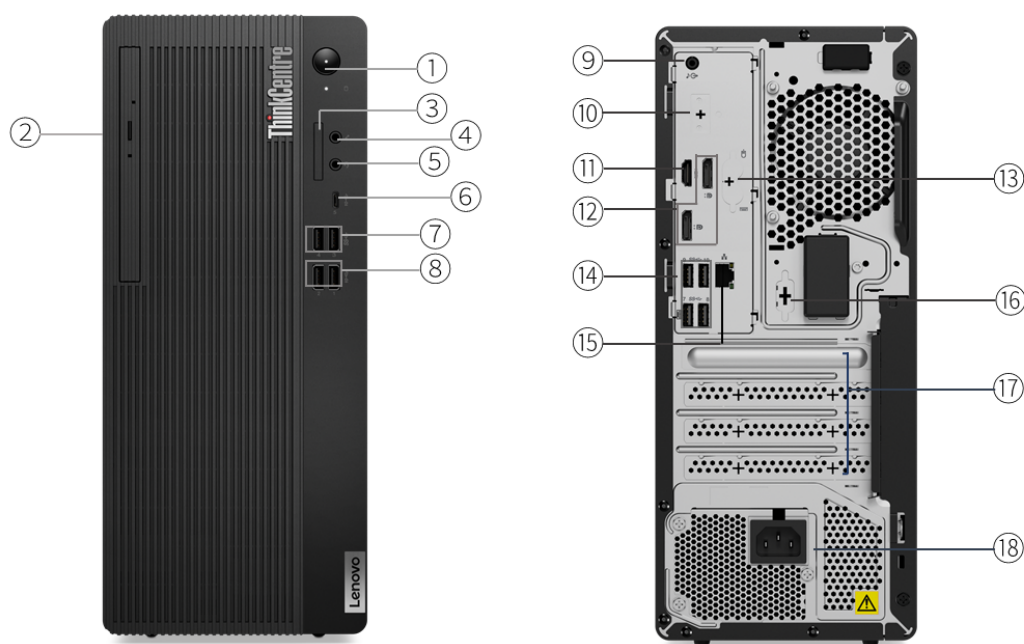
- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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notice.



OVERVIEW



1. Power button	10. Flex IO *
2. Optical drive *	11. HDMI 2.1 TMDS
3. Card reader *	12. 2x DisplayPort 1.4
4. Microphone (3.5mm)	13. 2x PS/2 ports (keyboard / mouse) *
5. Headphone / microphone combo jack (3.5mm)	14. 4x USB 3.2 Gen 1
6. USB-C 3.2 Gen 2	15. Ethernet (RJ-45)
7. 2x USB 3.2 Gen 1	16. Serial *
8. 2x USB 3.2 Gen 2	17. Optional ports on expansion cards *
9. Line-out (3.5mm)	18. Power connector

Notes:

- Ports with * are only available on selected models
- More ports are available through the optional expansion cards (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

Intel® Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Pentium Gold G7400	2	4	3.7GHz	-	6MB	DDR5-4800	Intel UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900F	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR5-4800	-

Operating System

Operating System

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 IoT Enterprise LTSC 2021
- Ubuntu Linux
- No operating system

Graphics

Graphics^[1]

Graphics	Type	Memory	Boost Clock	TGP	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 710	Integrated	Shared	-	-	2x DP 1.4 HBR2, 1x HDMI® 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C®)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX® 12	-
Intel UHD graphics 730	Integrated	Shared	-	-	2x DP 1.4 HBR2, 1x HDMI 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HD MI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX 12	-
Intel UHD graphics 770	Integrated	Shared	-	-	2x DP 1.4 HBR2, 1x HDMI 2.1 TMDS, 1x Flex IO	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HD MI) / Flex IO(DP)],	DirectX 12	-

					(VGA / DP 1.2 / HDMI 2.1 TMDs / USB-C)	3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]		
AMD Radeon™ RX 6400	Discrete	4GB GDDR6	-	-	1x HDMI 2.1, 1x DP 1.4	7680x4320@60Hz(HDMI), 7680x4320@60Hz(DP)	DirectX 12, OpenGL 4.6	-

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays via onboard ports (2x DP, 1x HDMI, and 1x optional Flex IO), more displays support via discrete graphics

Notes:

1. Onboard video ports are only available for the models with integrated graphics

Chipset

Chipset

Intel Q670 chipset

Memory

Max Memory^[1]

Up to 128GB DDR5

Memory Slots

Four DDR5 UDIMM slots, dual-channel capable

Memory Type^[2]

- DDR5-3600
- DDR5-4000
- DDR5-4400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

2. Installed memory is actually 4800MHz, but may run at 3600MHz, 4000MHz, or 4400MHz depending on the memory support capability of processor

Storage

Storage Support^{[1][2]}

Up to four drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 2x M.2 SSD

- 2.5" HDD up to 1TB
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB each

Storage Type

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	-	Opal2

RAID

RAID 0/1 support (RAID preset only available via special bid model)

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
- 2. The max capacity of SSD/HDD is based on the test results with current Lenovo SSD/HDD offerings. The system may support more capacity as the technology develops.

Removable Storage

Optical

- DVD-ROM, SATA connector, slim (9.0mm)
- DVD burner (DVD±RW), SATA connector, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC897Q-CG codec

Speakers

Single speaker, 2W x1

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
180W	Fixed	85%	100V - 240V
260W	Fixed	90%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
380W	Fixed	92%	100-240V, 50-60Hz

DESIGN

Input Device

Keyboard

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Mouse (PS/2 connector), black (only available via special bid)
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

Tower (13.6L)

Dimensions (WxDxH)

145 x 296 x 346 mm (5.7 x 11.7 x 13.6 inches)

Packaging Dimensions (WxDxH)

245 x 395 x 530 mm (9.65 x 15.55 x 20.87 inches)

Weight

Around 5.9 kg (13.0 lbs)

Packaging Weight

8.3 kg (18.29 lbs)

Case Color

Black

Bays^[1]

- 1x 2.5" disk bay
- 1x 3.5" disk bay
- 1x slim ODD bay

Expansion Slots

- One PCIe 4.0 x16, full-height, length ≤ 209mm, height ≤ 117.5mm
- One PCIe 4.0 x16 (x4 signal), full-height, length ≤ 185mm, height ≤ 110mm
- One PCIe 3.0 x1, full-height, length ≤ 185mm, height ≤ 110mm
- Three M.2 slots (one for WLAN, two for SSD)

EOU

Toolless cover, disk, optical, extension card assembly / removal

Stand

No stand

Others

- (Optional) Dust filter
- (Optional) Smart Cable (USB-A to USB-C)
- Supports Smart Power On

Notes:

1. 2.5" HDD tray is optional, or comes with 2.5 HDD. 3.5" bay supports 2.5" / 3.5" HDD, 3.5" to 2.5 converter comes with 2nd 2.5" HDD.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- 2.5 Gigabit Ethernet, Realtek RTL8125BGS, 1x RJ-45, PCIe x1
- No optional Ethernet

WLAN + Bluetooth^[1]

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB-C 3.2 Gen 2 (support data transfer and 15W charging)
- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

1x card reader

Rear Ports^[2]

- 4x USB 3.2 Gen 1
- 1x HDMI 2.1 TMDS
- 2x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports

- 1x USB-C 3.2 Gen 1 with DisplayPort function and 5V@3A charging (Flex IO)
- 1x HDMI 2.1 TMDS (Flex IO)
- 1x VGA (Flex IO)
- 1x DP 1.2 (Flex IO)
- 1x USB-C 3.2 Gen 2x2 (via USB-C expansion card, PCIe x4)
- 2x USB 2.0 (via 2-port adapter)
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- 1x serial
- 1x 2nd serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable**

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI dongle
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password

- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS (Level 2)
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Enterprise
- Intel vPro Essentials
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Other Certifications

(Optional) TÜV Rheinland® Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation, Contamination by Fluids, Salt Fog)

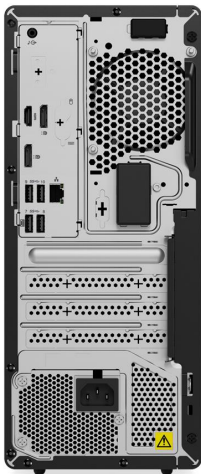
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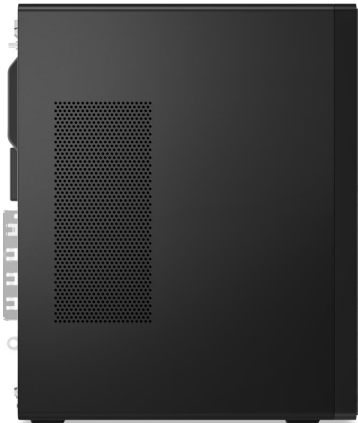
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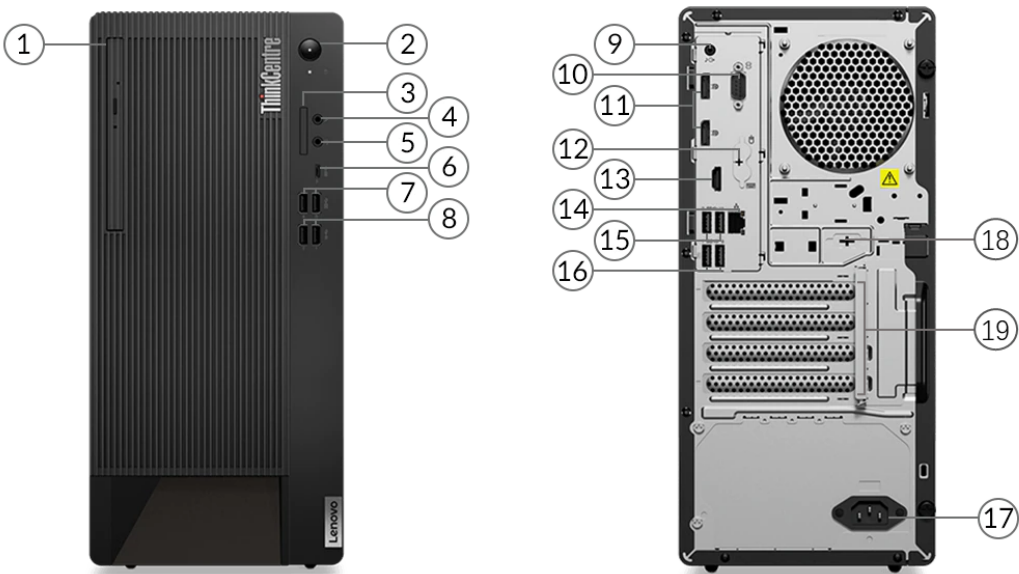


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intel

OVERVIEW



1. Optical drive *	11. 2x DisplayPort
2. Power button	12. 2x PS/2 ports (keyboard / mouse) *
3. Card reader *	13. Optional Video Port (HDMI / DP / USB-C) *
4. Microphone (3.5mm)	14. Ethernet (RJ-45)
5. Headphone / microphone combo jack (3.5mm)	15. 2x USB 3.2 Gen 1
6. USB-C 3.2 Gen 1	16. 2x USB 3.2 Gen 1
7. 2x USB 3.2 Gen 1	17. Power connector
8. 2x USB 3.2 Gen 2	18. Serial *
9. Line-out (3.5mm)	19. Optional ports on expansion cards *
10. Serial	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 10th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G5900	2	2	3.4GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5905	2	2	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5920	2	2	3.5GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6400	2	4	4.0GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6500	2	4	4.1GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6600	2	4	4.2GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400F	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	-
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-10700F	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	-
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900F	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	-

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics

Graphics**[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 610	Integrated	Shared	2x DP, 1x optional video port (HDMI® / 3rd DP / USB-C®)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 4096x2304@60Hz(USB-C)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	2x DP, 1x optional video port (HDMI / 3rd DP / USB-C)	4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 4096x2304@60Hz(USB-C)	DirectX 12
AMD Radeon™ 520	Discrete	2GB GDDR5	2x DP 1.2	4096x2160@60Hz(DP)	DirectX 12
AMD Radeon RX 550X	Discrete	4GB GDDR5	1x HDMI 2.0, 1x VGA, 1x DP 1.4	4096x2160@60Hz(HDMI), 2048x1536@85Hz(VGA),	DirectX 12

				3840x2160@60Hz(DP)	
NVIDIA® GeForce GT 730	Discrete	2GB GDDR5	1x VGA, 1x HDMI 1.4	2048x1536@75Hz(VGA), 3840x2160@30Hz(HDMI)	DirectX 12
NVIDIA GeForce GTX 1660 SUPER	Discrete	6GB GDDR6	1x HDMI 2.0b, 1x DP 1.4, 1x DVI-D	4096x2160@60Hz(HDMI), 7680x4320@60Hz with DSC(DP), 2560x1600@60Hz(DVI-D)	DirectX 12, PCIe® 3.0 x16, 125 watts, occupies two slots
NVIDIA GeForce RTX™ 2060	Discrete	6GB GDDR6	1x HDMI 3x DP	4096x2160@60Hz(HDMI), 7680x4320@60Hz with DSC(DP)	DirectX 12, PCIe 3.0 x16, 125 watts

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support^[1]

Supports up to 3 independent displays via onboard ports (2x DisplayPort™ and 1x optional port [HDMI / 3rd DP / USB-C]), more displays support via discrete graphics

Notes:

1. Onboard video ports are only available for the models with integrated graphics

Chipset

Chipset

Intel Q470 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-2933

Memory Slots

Four DDR4 DIMM slots, dual-channel capable

Memory Type^{**}

- DDR4-2666
- DDR4-2933

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to five drives, 2x 2.5"/3.5" HDD + 1x 2.5" HDD + 2x M.2 SSD

- 2.5" HDD up to 1TB each
- 3.5" HDD up to 2TB each
- M.2 SSD up to 2TB each
- Optional Intel Optane™ Memory, M.2

Storage Type^{***}

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

RAID

RAID 0/1 support (RAID preset only available via special bid model)

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical**

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

Speakers

Single speaker, 2W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
180W	Fixed	85%	-
300W	Fixed	85%	100-240V, 50-60Hz
300W	Fixed	90%	100-240V, 50-60Hz
500W	Fixed	92%	100-240V, 50-60Hz

DESIGN

Input Device

Keyboard**

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical

Form Factor

Tower (17L)

Dimensions (WxDxH)

170 x 298 x 376 mm (6.7 x 11.7 x 14.8 inches)

Packaging Dimensions (WxDxH)

275 x 395 x 540 mm (10.8 x 15.6 x 21.4 inches)

Weight

Around 6.5 kg (14.3 lbs)

Packaging Weight

9.8 kg (21.6 lbs)

Case Color

Black

Bays

- 1x 2.5" disk bay (bay comes with disk)
- 1x 3.5" disk bay
- 1x 3.5" disk bay (optional, or bay comes with disk)
- 1x slim ODD bay

Expansion Slots

- One PCIe 3.0 x1, full-height (length < 245mm)
- One PCIe 3.0 x4, full-height (length < 245mm)
- One PCIe 3.0 x16, full-height (length < 245mm)
- One dummy slot, only bracket for optional port extension
- Three M.2 slots (one for WLAN, two for SSD)

Others

- (Optional) Dust filter
- Supports Smart Power On

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet**

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- 2.5 Gigabit Ethernet, Realtek RTL8125BGS, 1x RJ-45, PCIe x1
- No optional Ethernet

WLAN + Bluetooth®^[1]**

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

- 1x card reader
- None

Rear Ports^[2]

- 4x USB 3.2 Gen 1
- 2x DisplayPort
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports***

- 2x USB 2.0 (via 2-port adapter)

- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- Optional video port (one of HDMI / DisplayPort / USB-C 3.2 Gen 1 with DisplayPort function)
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable***

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI 1.4 dongle
- DP to VGA cable (1.5M)
- DP to VGA dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^{[1][2]}

- Intel vPro with Intel AMT 14.0
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection

SERVICE

Warranty

Base Warranty^[1]**

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- EPEAT Silver
- ENERGY STAR® 8.0 (only available for MT 11D0/11CY)
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant

Other Certifications

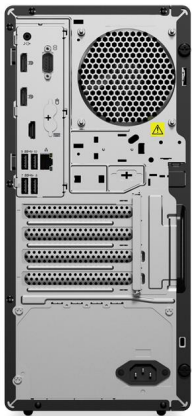
Other Certifications

(Optional) TÜV Rheinland® Ultra Low Noise

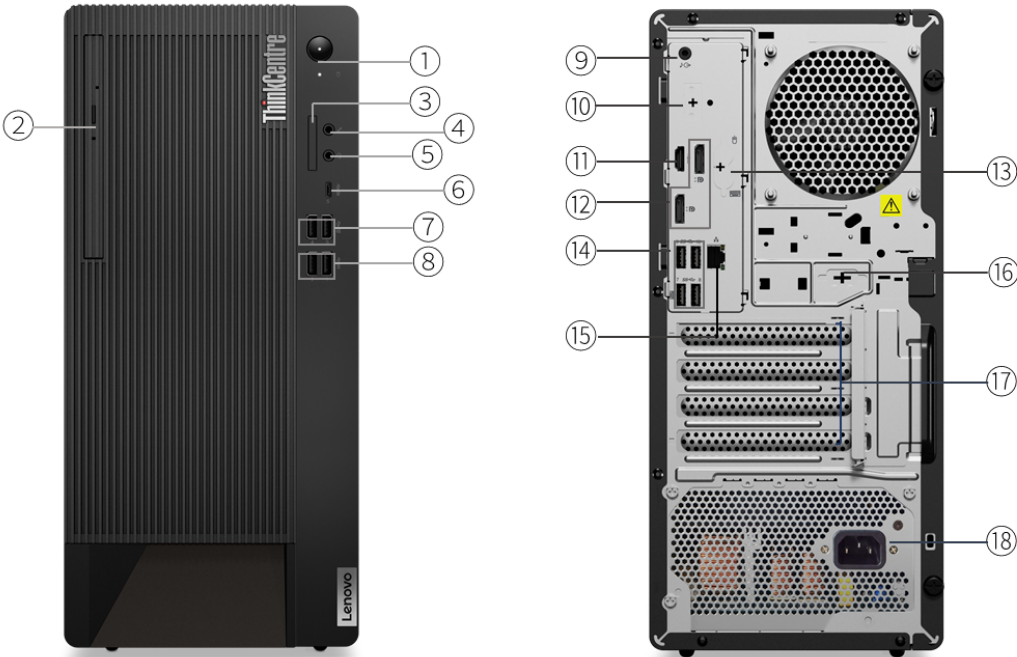
- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Power button	10. Flex IO *
2. Optical drive *	11. HDMI 2.1 TMDS
3. Card reader *	12. 2x DisplayPort 1.4
4. Microphone (3.5mm)	13. 2x PS/2 ports (keyboard / mouse) *
5. Headphone / microphone combo jack (3.5mm)	14. 4x USB 3.2 Gen 1
6. USB-C 3.2 Gen 2	15. Ethernet (RJ-45)
7. 2x USB 3.2 Gen 1	16. Serial *
8. 2x USB 3.2 Gen 2	17. Optional ports on expansion cards *
9. Line-out (3.5mm)	18. Power connector

- Notes:
- Ports with * are only available on selected models
 - More ports are available through the optional expansion cards (not shown on the sample product above)

PERFORMANCE

Processor

Processor Family

Intel® Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Pentium Gold G7400	2	4	3.7GHz	-	6MB	Intel UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	Intel UHD Graphics 730
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	Intel UHD Graphics 770
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	Intel UHD Graphics 730
Core i5-12400F	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	-
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	Intel UHD Graphics 770
Core i5-12600K	10 (6 P-core + 4 E-core)	16	P-core 3.7GHz / E-core 2.8GHz	P-core 4.9GHz / E-core 3.6GHz	20MB	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	Intel UHD Graphics 770
Core i7-12700F	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	-
Core i7-12700K	12 (8 P-core + 4 E-core)	20	P-core 3.6GHz / E-core 2.7GHz	P-core 4.9GHz / E-core 3.8GHz	25MB	Intel UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	Intel UHD Graphics 770
Core i9-12900F	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	-
Core i9-12900K	16 (8 P-core + 8 E-core)	24	P-core 3.2GHz / E-core 2.4GHz	P-core 5.1GHz / E-core 3.9GHz	30MB	Intel UHD Graphics 770

Operating System

Operating System

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 IoT Enterprise LTSC 2021
- Ubuntu Linux
- No operating system

Graphics

Graphics^[1]

Graphics	Type	Memory	Boost Clock	TGP	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 710	Integrated	Shared	-	-	2x DP 1.4 HBR2, 1x HDMI® 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 /	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)],	DirectX® 12	-

					HDMI 2.1 TMDS / USB-C®)	2048x1536@50Hz[Flex IO(VGA)]		
Intel UHD graphics 730	Integrated	Shared	-	-	2x DP 1.4 HBR2, 1x HDMI 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX 12	-
Intel UHD graphics 770	Integrated	Shared	-	-	2x DP 1.4 HBR2, 1x HDMI 2.1 TMDS, 1x Flex IO (VGA / DP 1.2 / HDMI 2.1 TMDS / USB-C)	4096x2304@60hz(DP), 4096x2160@60Hz[HDMI / Flex IO(HDMI) / Flex IO(DP)], 3840x2160@60Hz[Flex IO(USB-C)], 2048x1536@50Hz[Flex IO(VGA)]	DirectX 12	-
AMD Radeon™ RX 6400	Discrete	4GB GDDR6	-	-	1x HDMI 2.1, 1x DP 1.4	7680x4320@60Hz(HDMI), 7680x4320@60Hz(DP)	DirectX 12, OpenGL 4.6	-
NVIDIA® GeForce GTX 1660 SUPER	Discrete	6GB GDDR6	-	-	1x HDMI 2.0, 1x DP 1.4, 1x DVI-D	4096x2160@60Hz(HDMI), 5120x3200@60Hz (DP), 2560x1600@60Hz(DVI-D)	DirectX 12	-
NVIDIA GeForce RTX™ 3060	Discrete	12G GDDR6	-	-	1x HDMI 2.1, 3x DP 1.4	7680*4320@60Hz(HDMI), 5120x2880@60Hz(DP)	DirectX 12	-
NVIDIA GeForce RTX 3070 Ti	Discrete	8G GDDR6X	-	-	3x DP 1.4, 1x HDMI 2.1	7680x4320@60Hz(HDMI); 5120x2880@60Hz(DP)	DirectX 12	-

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays via onboard ports (2x DP, 1x HDMI, and 1x optional Flex IO), more displays support via discrete graphics

Notes:

1. Onboard video ports are only available for the models with integrated graphics

Chipset

Chipset

Intel Q670 chipset

Memory

Max Memory^[1]

Up to 128GB DDR5

Memory Slots

Four DDR5 UDIMM slots, dual-channel capable

Memory Type^[2]

- DDR5-3600
- DDR5-4000
- DDR5-4400

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. Installed memory is actually 4800MHz, but may run at 3600MHz, 4000MHz, or 4400MHz depending on the memory support capability of processor

Storage

Storage Support^{[1][2]}

Up to five drives, 2x 2.5"/3.5" HDD + 1x 2.5" HDD + 2x M.2 SSD

- 2.5" HDD up to 1TB each
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB

Storage Type

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Value	-	-	Opal2

RAID

RAID 0/1 support (RAID preset only available via special bid model)

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. The max capacity of SSD/HDD is based on the test results with current Lenovo SSD/HDD offerings. The system may support more capacity as the technology develops.

Removable Storage

Optical

- DVD-ROM, SATA connector, slim (9.0mm)
- DVD burner (DVD±RW), SATA connector, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC897Q-CG codec

Speakers

Single speaker, 2W x1

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
300W	Fixed	90%	100-240V, 50-60Hz
500W	Fixed	92%	100-240V, 50-60Hz
750W	Fixed	92%	100-240V, 50-60Hz

DESIGN

Input Device

Keyboard

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Keyboard (PS/2 connector), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Mouse (PS/2 connector), black (only available via special bid)
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

Mechanical**Form Factor**

Tower (17L)

Dimensions (WxDxH)

170 x 298 x 376 mm (6.7 x 11.7 x 14.8 inches)

Packaging Dimensions (WxDxH)

275 x 395 x 540 mm (10.8 x 15.6 x 21.4 inches)

Weight

Around 6.5 kg (14.3 lbs)

Packaging Weight

9.8 kg (21.6 lbs)

Case Color

Black

Bays

- 1x 2.5" disk bay (bay comes with disk)
- 1x 3.5" disk bay
- 1x 3.5" disk bay (optional, or bay comes with disk)
- 1x slim ODD bay

Expansion Slots

- One PCIe 4.0 x16, full-height, length ≤ 268.5mm, height ≤ 114.55mm
- One PCIe 4.0 x16 (x4 signal), full-height, length ≤ 205mm, height ≤ 114.55mm
- Two PCIe 3.0 x1, full-height, length ≤ 205mm, height ≤ 114.55mm
- Three M.2 slots (one for WLAN, two for SSD)

EOU

Toolless cover, disk, optical, extension card assembly / removal

Stand

No stand

Others

- (Optional) Dust filter
- (Optional) Smart Cable (USB-A to USB-C)
- Supports Smart Power On

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- No optional Ethernet

WLAN + Bluetooth^[1]

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, Intel vPro technology support, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Front Ports**

- 1x USB-C 3.2 Gen 2 (support data transfer and 15W charging)
- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

1x card reader

Rear Ports^[2]

- 4x USB 3.2 Gen 1
- 1x HDMI 2.1 TMDS
- 2x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports

- 1x USB-C 3.2 Gen 1 with DisplayPort function and 5V@3A charging (Flex IO)
- 1x HDMI 2.1 TMDS (Flex IO)
- 1x VGA (Flex IO)
- 1x DP 1.2 (Flex IO)
- 1x USB-C 3.2 Gen 2x2 (via USB-C expansion card, PCIe x4)
- 2x USB 2.0 (via 2-port adapter)
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- 1x serial
- 1x 2nd serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable**Monitor Cable**

- DP to dual DP dongle
- DP to HDMI dongle
- DP to VGA dongle
- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- DP to DVI dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Self-healing BIOS (Level 2)
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Enterprise
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS**Green Certifications****Green Certifications**

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications**Other Certifications**

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation, Contamination by Fluids, Salt Fog)

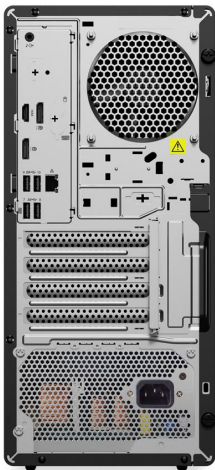
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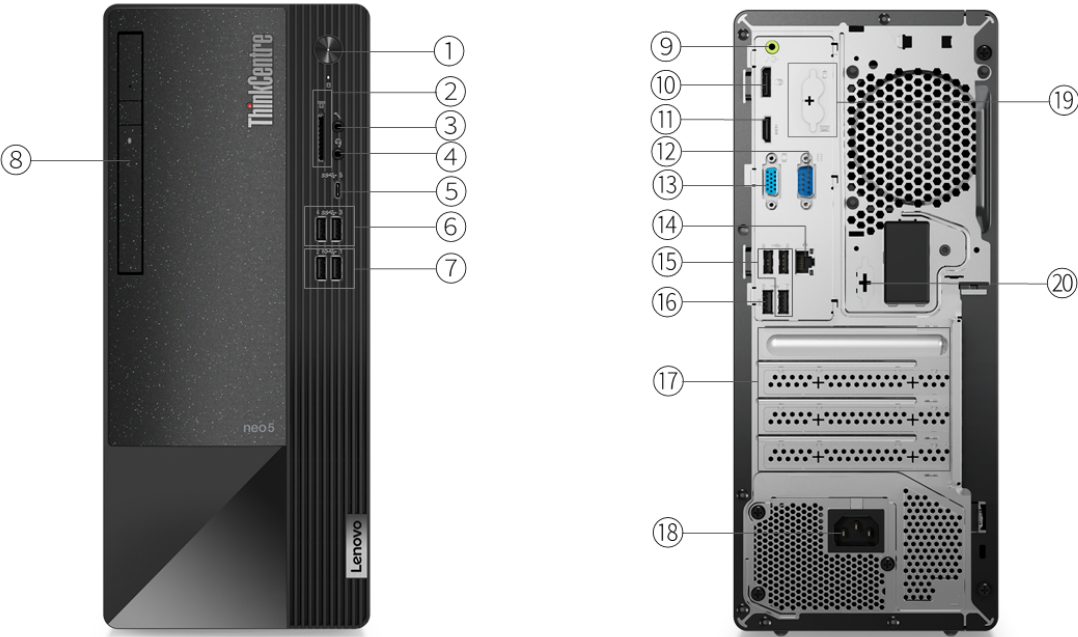


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OVERVIEW



1. Power button	11. HDMI 1.4b
2. Card reader *	12. Serial
3. Microphone (3.5mm)	13. VGA
4. Headphone / microphone combo jack (3.5mm)	14. Ethernet (RJ-45)
5. 1x USB-C 3.2 Gen 1	15. 3x USB 2.0
6. 2x USB 3.2 Gen 1	16. 1x USB 2.0 (with smart power-on feature)
7. 2x USB 3.2 Gen 2	17. Optional ports on expansion cards *
8. Optical drive *	18. Power connector
9. Headphone (3.5mm)	19. 2x PS/2 ports (keyboard / mouse) *
10. DisplayPort 1.4	20. serial *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron G6900	2	2	3.4GHz	-	4MB	DDR4-3200	Intel UHD Graphics 710
Pentium Gold G7400	2	4	3.7GHz	-	6MB	DDR4-3200	Intel UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR4-3200	Intel UHD Graphics 730
Core i5-12400F	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR4-3200	-
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR4-3200	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	DDR4-3200	Intel UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR4-3200	Intel UHD Graphics 770

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics***[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 710	Integrated	Shared	1x HDMI® 1.4b, 1x VGA, 1x DP 1.4	3840x2160@30Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2304@60Hz(DP)	DirectX® 12
Intel UHD graphics 730	Integrated	Shared	1x HDMI 1.4b, 1x VGA, 1x DP 1.4	3840x2160@30Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2304@60Hz(DP)	DirectX 12
Intel UHD graphics 770	Integrated	Shared	1x HDMI 1.4b, 1x VGA, 1x DP 1.4	3840x2160@30Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2304@60Hz(DP)	DirectX 12
Intel Iris® Xe MAX 100 Graphics	Discrete	2GB LPDDR4X	1x VGA, 1x HDMI 1.4	3840x2160@30Hz(HDMI), 1920x1080@60Hz(VGA)	DirectX 12, OpenGL 4.6

Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support

Supports up to 3 independent displays via (HDMI, DP and VGA), more displays support via discrete graphics

Chipset

Chipset

Intel B660 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Slots

Two DDR4 UDIMM slots, dual-channel capable

Memory Type

DDR4-3200

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 1x 3.5" HDD + 1x M.2 SSD

- 3.5" HDD up to 2TB
- M.2 SSD up to 1TB

Storage Type^{***}

Disk Type	Interface	RPM	Security
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	-	Opal2

RAID

No support

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical^{**}

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC222-CG codec

Speakers

- Single speaker, 2W x1
- No speakers

Power Supply

Power Supply**

Power	Type	Efficiency
180W	Fixed	85%
260W	Fixed	90%
310W	Fixed	92%
380W	Fixed	92%

DESIGN

Input Device

Keyboard**

- Euterpe Wireless Keyboard, grey
- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Fingerprint Mouse (USB connector), black
- Euterpe Wireless Mouse, grey
- No mouse

Mechanical

Form Factor

Tower (13.6L)

Dimensions (WxDxH)

145 x 294 x 340 mm (5.71 x 11.57 x 13.39 inches)

Packaging Dimensions (WxDxH)

All models: 245 x 395 x 530 mm (9.65 x 15.55 x 20.87 inches)

Weight

Around 5.5 kg (12.1 lbs)

Packaging Weight

All models: 7.5 kg (16.53 lbs)

Case Color

Black (chassis), grey (bezel)

Bays

- 1x 3.5" disk bay
- 1x slim ODD bay

Expansion Slots

- One PCIe 4.0 x16, full-height, half-length
- Two PCIe 3.0 x1, full-height, half-length
- Two M.2 slots (one for WLAN, one for SSD)

EOU

No support

Stand

No stand

Cooling System (Fan & Cooler)***

- (Optional) 1x rear system fan
- (Optional) 1x front system fan, 1x rear system fan
- (Optional) 1x front system fan

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-V, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

No optional Ethernet

WLAN + Bluetooth[®]*^[1]

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi[®] + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C[®] 3.2 Gen 1 (support data transfer and 5V@3A charging)
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

1x card reader

Rear Ports^[2]

- 4x USB 2.0
- 1x VGA
- 1x HDMI 1.4b
- 1x DisplayPort[™] 1.4
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x headphone (3.5mm)

Optional Rear Ports^{***}

- 1x serial
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt[™] 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable^{***}

- DP to DVI-D dongle
- HDMI to DVI dongle
- USB-A to USB-C cable
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

- Touch style fingerprint reader on mouse
- No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Cover presence switch
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management

Non-vPro

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- (Optional) ENERGY STAR® 8.0
- TCO Certified 9.0
- RoHS compliant
- REACH
- WEEE

Other Certifications

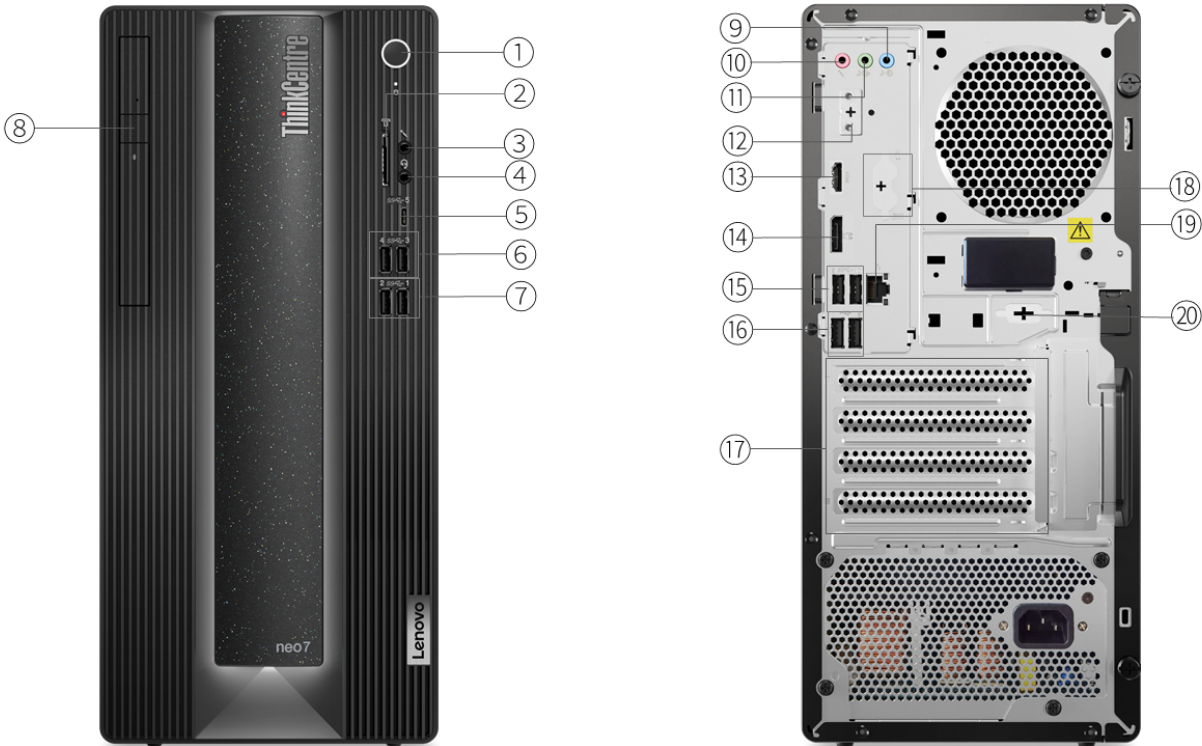
Other Certifications

TÜV Rheinland® Ultra Low Noise

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Power button	11. Line-out (3.5mm)
2. Card reader *	12. Flex IO *
3. Microphone (3.5mm)	13. HDMI 2.1 TMDs
4. Headphone / microphone combo jack (3.5mm)	14. DisplayPort 1.4
5. 1x USB-C 3.2 Gen 2	15. 2x USB 3.1 Gen 1
6. 2x USB 3.2 Gen 1	16. 2x USB 2.0 (one with smart power-on feature)
7. 2x USB 3.2 Gen 2	17. Expansion card *
8. Optical drive *	18. 2x PS/2 ports (keyboard / mouse) *
9. Line-in (3.5mm)	19. Ethernet (RJ-45)
10. Microphone (3.5mm)	20. Serial *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12400F	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR5-4800	-
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700KF	12 (8 P-core + 4 E-core)	20	P-core 3.6GHz / E-core 2.7GHz	P-core 4.9GHz / E-core 3.8GHz	25MB	DDR5-4800	-
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900KF	16 (8 P-core + 8 E-core)	24	P-core 3.2GHz / E-core 2.4GHz	P-core 5.1GHz / E-core 3.9GHz	30MB	DDR5-4800	-

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 DG Windows 10 Pro 64
- No operating system

Graphics

Graphics***[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 730	Integrated	Shared	1x HDMI® 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 4096x2304@60Hz(DP)	DirectX® 12
Intel UHD graphics 770	Integrated	Shared	1x HDMI 2.1 TMDS, 1x DP 1.4	4096x2160@60Hz(HDMI), 4096x2304@60Hz(DP)	DirectX 12
NVIDIA® GeForce RTX™ 3060 Ti	Discrete	8G GDDR6	1x HDMI 2.1, 3x DP 1.4	7680*4320@60Hz(HDMI), 7680x4320@120Hz(DP)	DirectX 12

Notes:

- The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

Monitor Support

Monitor Support*[1]

Supports up to 3 independent displays via onboard ports (HDMI, DisplayPort™, and 1x optional Flex IO), more displays support via discrete graphics

Notes:

- Onboard video ports are only available for the models with integrated graphics

Chipset

Chipset
Intel Q670 chipset

Memory

Max Memory^[1]
Up to 128GB DDR5
Memory Slots
Four DDR5 UDIMM slots, dual-channel capable

Memory Type^[2]

- DDR5-3600
- DDR5-4000
- DDR5-4400

Memory Protection
Non-ECC

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. Installed memory is actually 4800MHz, but may run at 3600MHz, 4000MHz, or 4400MHz depending on the memory support capability of processor

Storage

Storage Support^{[1][2]}
Up to four drives, 2x 3.5" HDD + 2x M.2 SSD

- 3.5" HDD up to 2TB each
- M.2 SSD up to 1TB each

Storage Type***

Disk Type	Interface	RPM	Security
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2280 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	-	Opal2

RAID
RAID 0/1 support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. The max capacity of SSD/HDD is based on the test results with current Lenovo SSD/HDD offerings. The system may support more capacity as the technology develops.

Removable Storage

Optical**

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC623-CG codec
Speakers

- Single speaker, 2W x1
- No speakers

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
750W	Fixed	92%	100-240V, autosensing

DESIGN

Input Device

Keyboard**

- Euterpe Wireless Keyboard, grey
- Lenovo Calliope Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Fingerprint Mouse (USB connector), black
- Euterpe Wireless Mouse, grey
- No mouse

Mechanical

Form Factor

Tower (17L)

Dimensions (WxDxH)

376 x 170 x 297.85 mm (14.8x 6.7 x 11.73 inches)

Packaging Dimensions (WxDxH)

395 x 275 x 540 mm (21.4 x 10.8 x 15.6 inches)

Weight

Around 7.5kg (16.53 lbs)

Packaging Weight

All models: 10.5 kg (23.14 lbs)

Case Color

Raven black

Bays

- 1x 3.5" disk bay
- 1x 3.5" disk bay (optional)
- 1x slim ODD bay

Expansion Slots

- One PCIe 3.0 x1
- One PCIe 4.0 x16 (x4 signal)
- One PCIe 4.0 x16, full-height, lenght<249mm
- Three M.2 slots (one for WLAN, two for SSD)

Cooling System (Fan & Cooler)**

- (Optional) 1x front system fan, 1x rear system fan
- (Optional) 1x rear system fan
- (Optional) 1x front system fan

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-V, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet**

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Realtek RTL8168H, 1x RJ-45, supports Wake-on-LAN
- No optional Ethernet

WLAN + Bluetooth®[1]**

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek RTL8822BE, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 5.1, M.2 card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Front Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

1x card reader

Rear Ports^[2]

- 2x USB 2.0 (one with smart power-on feature)
- 2x USB 3.2 Gen 1
- 1x HDMI 2.1 TMDS
- 1x DisplayPort 1.4
- 1x Ethernet (RJ-45)
- 1x line-in (3.5mm)
- 1x line-out (3.5mm)
- 1x microphone (3.5mm)

Optional Rear Ports***

- 1x HDMI 2.1 TMDS (Flex IO)
- 1x VGA (Flex IO)
- 1x DP 1.2 (Flex IO)
- 1x USB-C 3.2 Gen 1 (Flex IO)
- 1x USB-C 3.2 Gen 2x2 (via USB-C expansion card, PCIe x4)
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- 1x 1GbE RJ-45, via BN8E88
- 1x 1GbE RJ-45, via RGL8168H
- 1x 2.5GbE RJ-45, via RTL8125BGS
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2
- None

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s
2. For video ports on discrete graphics, please see graphics section

Monitor Cable

Monitor Cable

- HDMI 1.4 to HDMI 1.4 cable (1.5m)
- HDMI 1.4 to VGA dongle
- DP 1.4 to HDMI 2.1 TMDS dongle
- DP 1.4 to dual DP 1.4 dongle
- DP 1.2 to VGA dongle
- Smart Cable (USB Type A-C)
- DP 1.2 to DVI dongle
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader***

- Touch style fingerprint reader on mouse
- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Administrator password
- Secure Wipe
- Power-on password
- Hard disk password
- Cover presence switch
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Essentials
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year depot service
- 1-year limited onsite service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Storage: -40°C (-40°F) to 60°C (140°F)
- Operating: 0°C (32°F) to 35°C (95°F)

Humidity

- Operating: 20% to 80%
- Storage: 20% to 90%

Altitude

- Operating: -15.2 m (-50 ft) to 3048 m (10,000 ft)
- Storage: -15.2 m (-50 ft) to 10668 m (35,000 ft)

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- RoHS / WEEE / REACH

Other Certifications

Other Certifications

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

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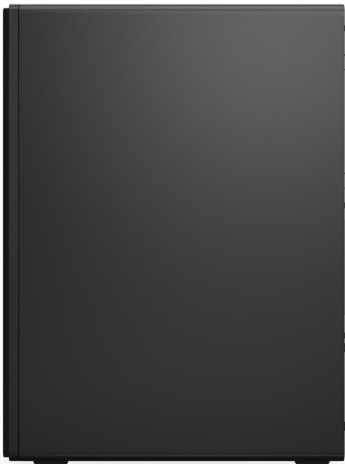
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Limited warranty: Support unrelated to a warranty issue may be subject to additional charges.

Lenovo Services:

Carry-in or Mail-in Service: Parts and labor repair coverage where the customer is responsible for shipping (including packaging) or delivery to authorized warranty provider or repair center.

Depot or Courier Service: Parts and labor repair coverage where shipping (including packaging) or delivery to the repair center is paid for by Lenovo.

Expedited Depot: Parts and labor coverage with expedited turnaround. Shipping (including packaging) or delivery to the repair center is paid for by Lenovo.

Onsite / In-home Service: Parts and labor repair coverage where labor is provided onsite at your place of business.

If Lenovo determines your product problem is covered by the product warranty and cannot be resolved over the telephone, a technician will be dispatched to arrive onsite, typically the next day.

International Warranty Service (IWS): PC repair coverage for customers who require a critical warranty repair while travelling internationally. Visit www.lenovo.com/internationalwarranty for details. Visit www.lenovo.com/warranty for Lenovo Warranty Services terms and conditions for complete details and restrictions.

Included software: may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.

Battery life: Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

Visit <http://psref.lenovo.com/> for the latest version of Product Specifications Reference.

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Lenovo 1009 Think Place Morrisville, NC 27560 U.S.A.

PSREF

Product Specifications Reference

ThinkStation

The ThinkStation logo is positioned in the upper right area of the cover. It features the word "ThinkStation" in a white, sans-serif font. A small red dot is placed above the letter "i" in "Think". The background of the entire cover is a low-angle, upward-looking photograph of a modern building's glass facade, which reflects a blue sky with white clouds. The geometric patterns of the glass panels create a complex, crystalline structure.

ThinkStation

Version 596
June 22, 2022

The Lenovo logo is located in the bottom right corner. It consists of the word "Lenovo" in a white, sans-serif font, oriented vertically. A small trademark symbol (TM) is located at the top right of the word. The logo is set against a solid blue rectangular background.

Lenovo™

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Summary of Changes

This section describes the technical changes made in this edition.

This edition might also include minor corrections and editorial changes which are not identified.

June 22, 2022 - Version 596

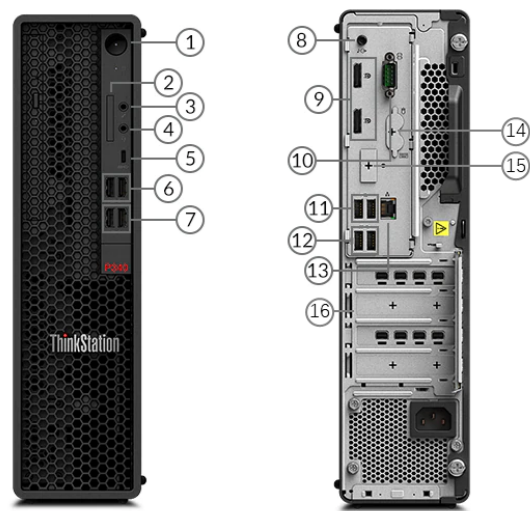
Additions in this update

- ▶ **New product(s)**
ThinkStation P360 Ultra
- ▶ **Spec updated**
ThinkStation P620

Withdrawals in this update

- ▶ **Withdrawn product(s)**
None

OVERVIEW



1. Power button	9. 2x DisplayPort
2. Card reader *	10. Serial
3. Microphone (3.5mm)	11. 2x USB 2.0
4. Headphone / microphone combo jack (3.5mm)	12. 2x USB 3.2 Gen 1
5. USB-C 3.2 Gen 1	13. Ethernet (RJ-45)
6. 2x USB 3.2 Gen 1	14. 2x PS/2 ports (keyboard / mouse) *
7. 2x USB 3.2 Gen 2	15. Video port (DisplayPort, HDMI, or USB-C) *
8. Line-out (3.5mm)	16. Optional ports on expansion cards *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Up to one Intel® Core™ i3 / i5 / i7 / i9 or Intel Xeon® Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Xeon W-1250	6	12	3.3GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics P630
Xeon W-1270	8	16	3.4GHz	5.0GHz	16MB	DDR4-2933	Intel UHD Graphics P630
Xeon W-1290	10	20	3.2GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics P630

Processor Sockets

1x FCLGA1200

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Pro 64 for Workstations
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Windows 10 Home 64
- Ubuntu Linux LTS
- No operating system

Graphics

Integrated Graphics**

- Intel UHD Graphics 630
- Intel UHD Graphics P630

Discrete Graphics Support

Supports up to one NVIDIA® T1000 or two NVIDIA T600

Discrete Graphics Offering***

Graphics	Memory	Power	Connector	SLI / NVlink
Quadro® P400	2GB GDDR5	30W	3x miniDP 1.4	None
Quadro P620	2GB GDDR5	40W	4x miniDP 1.4	None
Quadro P1000	4GB GDDR5	50W	4x miniDP 1.4	None
NVIDIA T400	2GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None

NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None
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Monitor Support

Monitor Support

Supports multiple displays via onboard video ports and discrete graphics, the number of maximum monitors supported depends on the graphic card in use

Chipset

Chipset

Intel W480 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-2933

Memory Type**

- DDR4-2933 UDIMM ECC
- DDR4-2933 UDIMM non-ECC

Memory Slots

Four DDR4 UDIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to 1x 3.5" SATA HDD / 2x 2.5" SATA HDD / SSD + 4x M.2 PCIe® SSD

- 3.5" HDD up to 4TB
- 2.5" SATA HDD up to 1TB each
- 2.5" SATA SSD up to 1TB each
- M.2 SSD up to 2TB each
- Optional Intel Optane™ Memory

Storage Type***

Disk Type	Interface	RPM	Offering
2.5" SATA SSD	SATA 6Gb/s	-	512GB / 1TB
2.5" SATA HDD	SATA 6Gb/s	7.2K	1TB FIPS
3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 2TB / 4TB
M.2 PCIe SSD	PCIe NVMe®	-	256GB / 512GB / 1TB / 2TB

Storage Controllers

Storage Controller	Type	Interface	RAID	Cache
Onboard Intel RST SATA RAID	Standard	SATA 6.0Gb/s	0/1	None
Onboard Intel RST PCIe RAID	Standard	PCIe NVMe	0/1	None

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical Support

Optional one 9.0mm optical drive, DVD-ROM, DVD±RW, and Blu-ray

Card Reader

- SD card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623 codec

Speakers

Single speaker

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
310W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified
380W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified

DESIGN

Mechanical

Form Factor

Mini-tower (8.2L)

Dimensions (WxDxH)

92.5 x 309.7 x 339.5 mm (3.6 x 9.3 x 13.4 inches)

Weight

5.65 kg (12.46 lbs, maximum configuration)

Bays

- 1x 2.5" disk bay (optional, comes with disk or Storage Bay Upgrade Kit)
- 1x 3.5" disk bay (optional, comes with disk or Storage Bay Upgrade Kit)

M.2 Slots

Up to 4x M.2 SSD:

- 2 via onboard slots
- 2 via Single M.2 to PCIe adapter

Expansion Slots

- One PCIe 3.0 x16
- One PCIe 3.0 x1
- One PCIe 3.0 x16 (x4 lanes)

Expansion Slots Offering

Slot 1: PCIe 3.0 x16, low profile, links to CPU

Slot 2: PCIe 3.0 x1, low profile, links to PCH

Slot 3: PCIe 3.0 x16 (negotiable link width x4), low profile, links to PCH

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

Additional Ethernet options via PCIe adapter

WLAN + Bluetooth®¹

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Rear Ports^[2]

- 2x USB 2.0
- 2x USB 3.2 Gen 1
- 2x DisplayPort™
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports^{***}

- 2x USB 2.0
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card)
- 1x Thunderbolt™
- 1x video (DisplayPort, HDMI®, or USB-C)
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) Cable lock
- (Optional) E-lock
- Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password

MANAGEABILITY

System Management

System Management^{**[1][2]}

- Intel vPro with Intel AMT 14.0 (vPro-enable processor and WiFi needed)
- Standard Manageability

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

Diagnostic

Diagnostic

Lenovo UEFI Bootable Diagnostics

SERVICE

Warranty

Base Warranty^[1]

3-year limited onsite service with 9x5 NBD (for most models)

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- ENERGY STAR® 8.0
- RoHS compliant

ISV Certifications

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

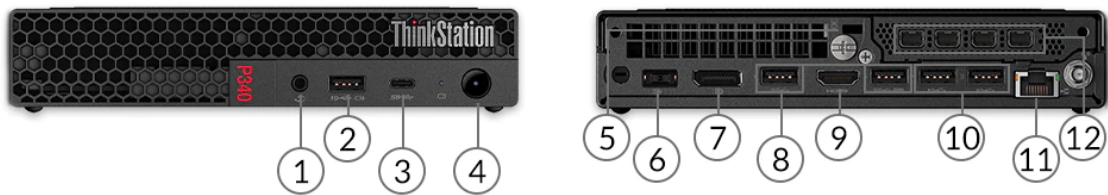
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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	7. DisplayPort
2. USB 3.2 Gen 2 (Always On and fast charge)	8. 2x USB 3.2 Gen 1
3. USB-C 3.2 Gen 1	9. HDMI
4. Power button	10. 2x USB 3.2 Gen 2
5. Kensington Security Slot	11. Ethernet (RJ-45)
6. Power connector	12. 4x MiniDP *

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Up to one Intel® Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100T	4	8	3.0GHz	3.8GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300T	4	8	3.0GHz	3.9GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400T	6	12	2.0GHz	3.6GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500T	6	12	2.3GHz	3.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600T	6	12	2.4GHz	4.0GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-10700T	8	16	2.0GHz	4.5GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900T	10	20	1.9GHz	4.6GHz	20MB	DDR4-2933	Intel UHD Graphics 630

Processor Sockets

1x FCLGA1200

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Ubuntu Linux LTS
- No operating system

Graphics

Integrated Graphics

Intel UHD Graphics 630

Discrete Graphics Support

Supports one optional discrete graphics card

Discrete Graphics Offering**

Graphics	Memory	Power	Connector	SLI / NVlink
Quadro® P620	2GB GDDR5	40W	4x miniDP 1.4	None
Quadro P1000	4GB GDDR5	50W	4x miniDP 1.4	None
NVIDIA® T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None

Monitor Support

Monitor Support

Supports multiple displays via onboard video ports and discrete graphics, the number of maximum monitors supported

depends on the graphic card in use

Chipset

Chipset

Intel Q470 chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-2933

Memory Type

DDR4-2933 non-ECC

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 2x M.2 PCIe® SSD

- M.2 SSD up to 2TB each

Storage Type

Disk Type	Interface	RPM	Offering
M.2 PCIe SSD	PCIe NVMe®	-	256GB / 512GB / 1TB / 2TB

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical Support

Optional one 9.0mm optical drive via optical drive kit, DVD-ROM or DVD±RW

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233 codec

Speakers

Single speaker

Power Supply

Power Supply^{**}

Power	Type	Efficiency	Key Features
170W	Adapter	89%	100V - 240V
230W	Adapter	89%	100V - 240V

DESIGN

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

37 x 182.9 x 179 mm (1.5 x 7.2 x 7.0 inches)

Weight

Models	Weight
Tiny only	1.4 kg (3 lbs, maximum configuration)

Bays

No bays

M.2 Slots

Up to 2x M.2 SSD via onboard slots

Expansion Slots

One PCIe 3.0 x16 or x4 slot, low-profile, via riser card

Expansion Slots Offering

One PCIe slot via specific riser card:
PCIe 3.0 x16 (negotiable link width x8) and low profile for discrete graphics card
PCIe 3.0 x4 and low profile for ethernet adapter and Thunderbolt™ adapter

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

Additional Ethernet options via PCIe adapter

WLAN + Bluetooth®**[1]

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.2 Gen 2 (Always On and fast charge)
- 1x USB-C® 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)

Rear Ports^[2]

- 2x USB 3.2 Gen 1 (one supports Smart Power On)
- 2x USB 3.2 Gen 2
- 1x HDMI®
- 1x DisplayPort™
- 1x Ethernet (RJ-45)

Optional Rear Ports***

- 2x USB 3.2 Gen 1
- 1x Thunderbolt
- Optional port 1 (one of VGA / 2nd DisplayPort / 2nd HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort function)
- Optional port 2 (serial)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

BIOS Security

- Administrator password
- Power-on password

MANAGEABILITY

System Management

System Management^{**[1][2]}

- Intel vPro with Intel AMT 14.0 (vPro-enable processor and WiFi needed)
- Standard Manageability

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

Diagnostic

Diagnostic

Lenovo UEFI Bootable Diagnostics

SERVICE

Warranty

Base Warranty^[1]

3-year limited onsite service with 9x5 NBD (for most models)

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver

- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

ISV Certifications

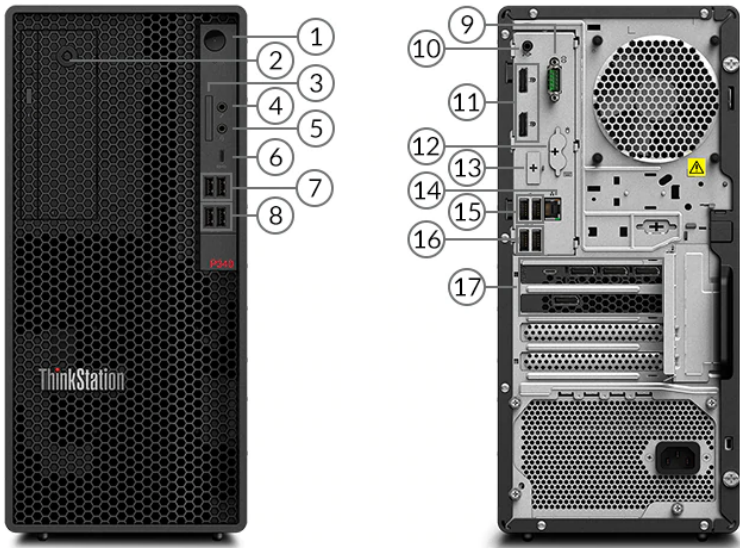
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

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OVERVIEW



1. Power button	10. Line-out (3.5mm)
2. Optical drive *	11. 2x DisplayPort
3. Card reader	12. 2x PS/2 ports (keyboard / mouse) *
4. Microphone (3.5mm)	13. Video port (DisplayPort, HDMI, or USB-C) *
5. Headphone / microphone combo jack (3.5mm)	14. Ethernet (RJ-45)
6. USB-C 3.2 Gen 1	15. 2x USB 2.0
7. 2x USB 3.2 Gen 1	16. 2x USB 3.2 Gen 1
8. 2x USB 3.2 Gen 2	17. Optional ports on expansion cards *
9. Serial	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Up to one Intel® Core™ i3 / i5 / i7 / i9 or Intel Xeon® Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600K	6	12	4.1GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-10700K	8	16	3.8GHz	5.1GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900K	10	20	3.7GHz	5.3GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Xeon W-1250	6	12	3.3GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics P630
Xeon W-1250P	6	12	4.1GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics P630
Xeon W-1270	8	16	3.4GHz	5.0GHz	16MB	DDR4-2933	Intel UHD Graphics P630
Xeon W-1270P	8	16	3.8GHz	5.1GHz	16MB	DDR4-2933	Intel UHD Graphics P630
Xeon W-1290	10	20	3.2GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics P630
Xeon W-1290P	10	20	3.7GHz	5.3GHz	20MB	DDR4-2933	Intel UHD Graphics P630

Processor Sockets

1x FCLGA1200

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Pro 64 for Workstations
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Ubuntu Linux LTS
- No operating system

Graphics

Integrated Graphics**

- Intel UHD Graphics 630
- Intel UHD Graphics P630

Discrete Graphics Support

Supports up to one NVIDIA® Quadro® RTX 5000 or two NVIDIA RTX A2000, 500W PSU is needed

Discrete Graphics Offering***[1]

Graphics	Memory	Power	Connector	SLI / NVlink
Quadro P400	2GB GDDR5	30W	3x miniDP 1.4	None
Quadro P620	2GB GDDR5	40W	4x miniDP 1.4	None

Quadro P1000	4GB GDDR5	50W	4x miniDP 1.4	None
Quadro P2000	5GB GDDR5	75W	4x DP	None
Quadro P2200	5GB GDDR5	75W	4x DP 1.4	None
NVIDIA T400	2GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None
Quadro RTX 4000	8GB GDDR6	160W	3x DP 1.4, 1x VirtualLink	None
Quadro RTX 5000	16GB GDDR6	265W	4x DP 1.4, 1x VirtualLink	None
NVIDIA RTX A2000	6GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A2000	12GB GDDR6	70W	4x miniDP 1.4a	None

Notes:

1. NVIDIA Quadro RTX 5000 supports manufacture configure only, none standalone option is available.

Monitor Support

Monitor Support

Supports multiple displays via onboard video ports and discrete graphics, the number of maximum monitors supported depends on the graphic card in use

Chipset

Chipset

Intel W480 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-2933

Memory Type**

- DDR4-2933 UDIMM ECC
- DDR4-2933 UDIMM non-ECC

Memory Slots

Four DDR4 UDIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to 2x 3.5" SATA HDD / 4x 2.5" SATA HDD / SSD + 4x M.2 PCIe® SSD

- 3.5" HDD up to 4TB each
- 2.5" SATA HDD up to 1TB each
- 2.5" SATA SSD up to 1TB each
- M.2 PCIe SSD up to 2TB each
- Optional Intel Optane™ Memory

Storage Type***

Disk Type	Interface	RPM	Offering
2.5" SATA SSD	SATA 6Gb/s	-	512GB / 1TB
2.5" SATA HDD	SATA 6Gb/s	7.2K	1TB FIPS

3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 2TB / 4TB
M.2 PCIe SSD	PCIe NVMe®	-	256GB / 512GB / 1TB / 2TB
Intel Optane Memory	PCIe NVMe	-	-

Storage Controllers

Storage Controller	Type	Interface	RAID	Cache
Onboard Intel RSTe SATA RAID	Standard	SATA 6.0Gb/s	0/1/10/5	None
Onboard Intel RST PCIe RAID	Standard	PCIe NVMe	0/1	None

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical Support

Optional one 9.0mm optical drive, DVD-ROM, DVD±RW, and Blu-ray

Card Reader

- SD card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623 codec

Speakers

Single speaker

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
300W	Fixed	90%	100V - 240V, 80 PLUS Gold qualified
500W	Fixed	92%	100V - 240V, 80 PLUS Platinum qualified

DESIGN

Mechanical

Form Factor

Tower (17L)

Dimensions (WxDxH)

170 x 315.35 x 376 mm (6.7 x 12.4 x 14.8 inches)

Weight

9.38 kg (20.68 lbs, maximum configuration)

Bays

- 1x 3.5" disk bay (standard)
- 2x 2.5" disk bay (optional, comes with disk or optional upgrade kit)
- 1x 3.5" disk bay (optional, via flex bay)

M.2 Slots

Up to 4x M.2 SSD:

- 2 via onboard slots
- 2 via Single M.2 to PCIe adapter

Expansion Slots

- One PCIe 3.0 x16
- One PCIe 3.0 x1

- One PCIe 3.0 x16 (x4 lanes)

Expansion Slots Offering

Slot 1: PCIe 3.0 x16, full height, full length, links to CPU

Slot 2: PCIe 3.0 x1, full height, full length, links to PCH

Slot 3: PCIe 3.0 x16 (negotiable link width x4), full height, full length, links to PCH

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

Additional Ethernet options via PCIe adapter

WLAN + Bluetooth®^[1]**

- Mediatek Wi-Fi® 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Rear Ports^[2]

- 2x USB 2.0
- 2x USB 3.2 Gen 1
- 2x DisplayPort™
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports***

- 2x USB 2.0
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card)
- 1x Thunderbolt™
- 1x video (DisplayPort, HDMI®, or USB-C)
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) Cable lock
- (Optional) E-lock
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password

MANAGEABILITY

System Management

System Management**^{[1][2]}

- Intel vPro with Intel AMT 14.0 (vPro-enable processor and WiFi needed)
- Standard Manageability

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

Diagnostic

Diagnostic

Lenovo UEFI Bootable Diagnostics

SERVICE

Warranty

Base Warranty**^[1]

- 1-year limited onsite service
- 2-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- ENERGY STAR® 8.0
- RoHS compliant

ISV Certifications

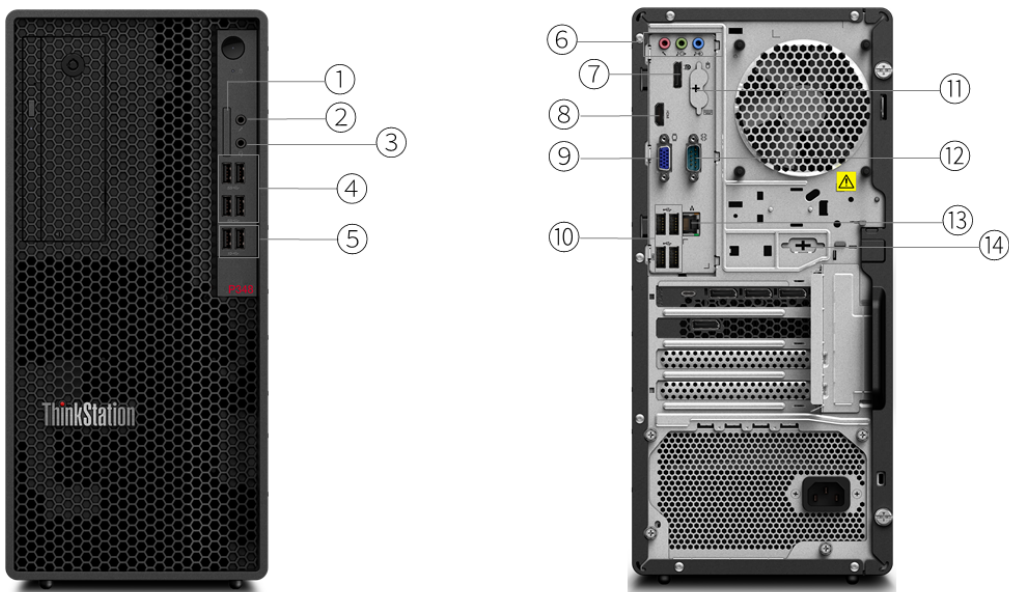
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

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OVERVIEW



1. SD card reader *	8. HDMI
2. Microphone (3.5mm)	9. VGA
3. Headphone (3.5mm)	10. 4x USB 2.0
4. 4x USB 3.2 Gen 1	11. 2x PS/2 ports (keyboard / mouse) *
5. 2x USB 3.2 Gen 2	12. Serial
6. 3x Audio ports (3.5mm)	13. Ethernet (RJ-45)
7. DisplayPort	14. Serial *

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-11500	6	12	2.7GHz	4.6GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11600	6	12	2.8GHz	4.8GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i7-11700	8	16	2.5GHz	4.9GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-11900	8	16	2.5GHz	5.2GHz	16MB	DDR4-3200	Intel UHD Graphics 750

Processor Sockets

1x FCLGA1200

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Ubuntu Linux LTS
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Integrated Graphics**

- Intel UHD Graphics 630
- Intel UHD Graphics 750

Discrete Graphics Support

Supports up to one NVIDIA® GeForce RTX™ 3060, NVIDIA RTX A2000, or AMD Radeon™ Pro WX 3200

Discrete Graphics Offering***

Graphics	Memory	Power	Connector	SLI / NVlink
NVIDIA T400	2GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA RTX A2000	12GB GDDR6	70W	4x miniDP 1.4a	None
AMD Radeon Pro WX 3200	4GB GDDR5	50W	4x miniDP 1.4	-
NVIDIA GeForce RTX 3060	12GB GDDR6	170W	3x DP 1.4a, 1x HDMI® 2.1	-

Monitor Support

Monitor Support

Supports multiple displays via onboard video ports and discrete graphics, the number of maximum monitors supported depends on the graphic card in use

Chipset

Chipset

Intel B560 chipset

Memory

Max Memory^[1]

Up to 128GB (4x 32GB UDIMMs) DDR4-3200

Memory Type

DDR4-3200 UDIMM non-ECC

Memory Slots

Four DDR4 UDIMM slots, dual-channel capable

Memory Protection

Non-ECC

Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to three drives, 2x 3.5" SATA HDD + 1x M.2 SSD

- 3.5" HDD up to 4TB each
- M.2 SSD up to 1TB

Storage Type^{***}

Disk Type	Interface	RPM	Offering	Security
3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 2TB / 4TB	-
M.2 2280 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	256GB / 512GB / 1TB	Opal

Storage Controllers

Storage Controller	Type	Interface	RAID	Cache
Integrated NVMe controller	Standard	PCIe NVMe	-	None
Integrated SATA controller	Standard	SATA 6.0Gb/s	-	None

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical Support

Optional one 9.0mm optical drive, DVD-ROM or DVD±RW

Card Reader

- SD card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
500W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified

DESIGN

Mechanical

Form Factor

Tower (17L)

Dimensions (WxDxH)

170 x 315.4 x 376 mm (6.7 x 12.4 x 14.8 inches)

Weight

8.4 kg (18.5 lbs)

Bays

- 1x 3.5" disk bay (standard)
- 1x 2.5" disk bay (optional by 2.5" HDD cage kit)
- 1x 3.5" disk bay (optional, comes with disk or 3.5" HDD cage kit in flex bay)

Flex Bays

1x Flex bay, supports 2nd 3.5" disk bay and 9.0mm optical

M.2 Slots

Up to 1x M.2 SSD via onboard slot

Expansion Slots

- One PCIe 4.0 x16
- Two PCIe 3.0 x1

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111K, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

Additional Ethernet options via PCIe adapter

WLAN + Bluetooth®^[1]**

- MediaTek Wi-Fi® 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 4x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x headphone (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports

None

Rear Ports^[2]

- 4x USB 2.0 (one supports Smart Power On)
- 1x VGA
- 1x HDMI
- 1x DisplayPort™
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-in (3.5mm)
- 1x line-out (3.5mm)
- 1x microphone (3.5mm)

Optional Rear Ports***

- 2x USB 2.0
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card)
- 2x PS/2
- None

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Firmware TPM 2.0 integrated in chipset

Physical Locks

- (Optional) Cable lock
- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password

MANAGEABILITY

System Management

System Management^{[1][2]}

Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

Diagnostic

Diagnostic

Lenovo UEFI Bootable Diagnostics

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year limited onsite service
- 2-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- RoHS compliant

ISV Certifications

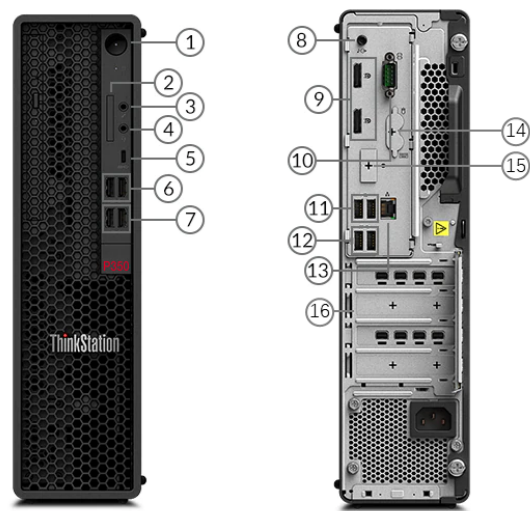
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

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- The specifications on this page may not be available in all regions, and may be changed or updated without notice.



OVERVIEW



1. Power button	9. 2x DisplayPort
2. Card reader *	10. Serial
3. Microphone (3.5mm)	11. 2x USB 3.2 Gen 1
4. Headphone / microphone combo jack (3.5mm)	12. 2x USB 3.2 Gen 1
5. USB-C 3.2 Gen 2 (data transfer only)	13. Ethernet (RJ-45)
6. 2x USB 3.2 Gen 1	14. 2x PS/2 ports (keyboard / mouse) *
7. 2x USB 3.2 Gen 2	15. Video port (DisplayPort, HDMI, or USB-C) *
8. Line-out (3.5mm)	16. Optional ports on expansion cards *

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i3, 11th Generation Intel Core i5 / i7 / i9, or Intel Xeon® Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-10105	4	8	3.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10305	4	8	3.8GHz	4.5GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10325	4	8	3.9GHz	4.7GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-11400	6	12	2.6GHz	4.4GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-11500	6	12	2.7GHz	4.6GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11600	6	12	2.8GHz	4.8GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-10700K	8	16	3.8GHz	5.1GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-11700	8	16	2.5GHz	4.9GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900K	10	20	3.7GHz	5.3GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-11900	8	16	2.5GHz	5.2GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Xeon W-1350	6	12	3.3GHz	5.0GHz	12MB	DDR4-3200	Intel UHD Graphics P750
Xeon W-1370	8	16	2.9GHz	5.1GHz	16MB	DDR4-3200	Intel UHD Graphics P750
Xeon W-1390	8	16	2.8GHz	5.2GHz	16MB	DDR4-3200	Intel UHD Graphics P750

Processor Sockets

1x FCLGA1200

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Pro 64 for Workstations
- Windows 11 DG Windows 10 Pro 64
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Ubuntu Linux LTS
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Integrated Graphics**

- Intel UHD Graphics 630
- Intel UHD Graphics 730
- Intel UHD Graphics 750
- Intel UHD Graphics P750

Discrete Graphics Support^[1]

Supports up to one NVIDIA® RTX A2000 or two NVIDIA T400

Discrete Graphics Offering

Graphics	Memory	Power	Connector	SLI / NVlink
NVIDIA T400	2GB GDDR6	40W	3x miniDP 1.4	None

NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA RTX A2000	6GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A2000	12GB GDDR6	70W	4x miniDP 1.4a	None

Notes:

1. NVIDIA RTX A2000 is available only on selected models.

Monitor Support

Monitor Support

Supports multiple displays via onboard video ports and discrete graphics, the number of maximum monitors supported depends on the graphic card in use

Chipset

Chipset

Intel W580 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-3200

Memory Type^{**}

- DDR4-3200 UDIMM non-ECC
- DDR4-3200 UDIMM ECC

Memory Slots

Four DDR4 UDIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}

Up to 1x 3.5" SATA HDD + 1x 2.5" SATA HDD + 3x M.2 SSD

- 3.5" HDD up to 4TB
- 2.5" HDD up to 1TB
- M.2 SSD up to 2TB each

Storage Type^{***}

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 1TB FIPS	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 2TB / 4TB	-
M.2 2280 SSD	PCIe® NVMe®, PCIe 4.0	-	256GB / 512GB / 1TB / 2TB	Opal

Storage Controllers^[3]

Storage Controller	Type	Interface	RAID	Cache
Onboard Intel RST SATA RAID	Standard	SATA 6.0Gb/s	0/1	None
Onboard Intel RST PCIe RAID	Standard	PCIe NVMe	0/1	None

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger

- storage as the technology develops.
- Model with 10th Core processor supports 2x M.2 SSD
 - Cannot install OS in SATA RAID 1 volume.
- M.2 RAID is supported on onboard M.2 PCIe Gen 3 slot and single M.2 to PCIe adapter only.

Removable Storage

Optical Support

Optional one 9.0mm optical drive, DVD-ROM, DVD±RW, and Blu-ray

Card Reader

- SD card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

Speakers

Single speaker

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
380W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified

DESIGN

Mechanical

Form Factor

Mini-tower (8.2L)

Dimensions (WxDxH)

92.5 x 309.7 x 339.5 mm (3.6 x 9.3 x 13.4 inches)

Weight

5.01 kg (11 lbs, maximum configuration)

Bays

- 1x 3.5" disk bay (standard)
- 1x 2.5" disk bay (optional, comes with disk)

M.2 Slots^[1]

- Up to 2x M.2 SSD on model with 10th Core processor:
 - 1 via onboard slot with M.2 PCIe Gen 3
 - 1 via Single M.2 to PCIe adapter, PCIe Gen 3
- Up to 3x M.2 SSD on models with Xeon or 11th Core processor:
 - 2 via onboard slots with 1x M.2 PCIe Gen 4 and 1x M.2 PCIe Gen 3
 - 1 via Single M.2 to PCIe adapter, PCIe Gen 3

Expansion Slots

- One PCIe 4.0 x16
- One PCIe 3.0 x1
- One PCIe 3.0 x16 (x4 lanes)

Notes:

- M.2 Gen 4 SSD works at Gen 3 speed on Gen 3 slot

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet***

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- Gigabit Ethernet, Intel I210-T1, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel I350-F2, 2x Fiber, PCIe x4
- Gigabit Ethernet, Intel I350-T2, 2x RJ-45, PCIe x4
- 10GBASE-T Ethernet, Marvell AQtion AQN-107, 1x RJ-45, PCIe x4

WLAN + Bluetooth®[1]**

- Mediatek Wi-Fi® 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Front Ports**

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Rear Ports^[2]

- 4x USB 3.2 Gen 1 (one supports Smart Power On)
- 2x DisplayPort™
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports***

- 1x USB-C (video)
- 2x USB 2.0
- 2x USB 3.2 Gen 1
- 2x USB-C 3.2 Gen 2x2
- 1x HDMI®
- 1x DP
- 1x Thunderbolt™
- 1x parallel
- 2x PS/2
- None

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks^[1]

- (Optional) Cable lock
- (Optional) E-lock

- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password

Notes:

1. E-lock is not available in EMEA

MANAGEABILITY

System Management

System Management^{[1][2]}**

- Intel vPro with Intel AMT 14.0 (vPro-enable processor and WiFi needed)
- Standard Manageability

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

Diagnostic

Diagnostic

Lenovo UEFI Bootable Diagnostics

SERVICE

Warranty

Base Warranty^[1]**

- 1-year limited onsite service
- 2-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- ENERGY STAR® 8.0
- RoHS compliant

ISV Certifications

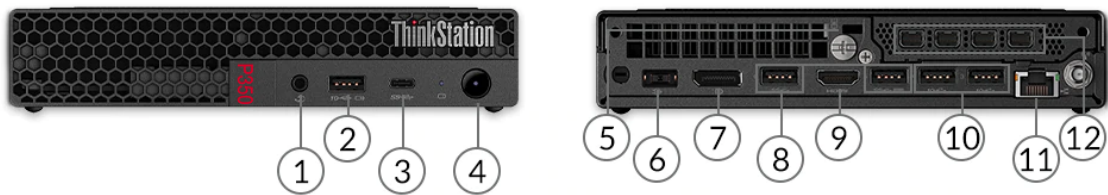
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

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- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	7. DisplayPort
2. USB 3.2 Gen 2 (Always On and fast charge)	8. 2x USB 3.2 Gen 1
3. USB-C 3.2 Gen 2 (data transfer only)	9. HDMI
4. Power button	10. 2x USB 3.2 Gen 2
5. Kensington Security Slot	11. Ethernet (RJ-45)
6. Power connector	12. 4x MiniDP *

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i3 or 11th Generation Intel Core i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-10105	4	8	3.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10105T	4	8	3.0GHz	3.9GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10305	4	8	3.8GHz	4.5GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10305T	4	8	3.0GHz	4.0GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10325	4	8	3.9GHz	4.7GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-11400	6	12	2.6GHz	4.4GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-11400T	6	12	1.3GHz	3.7GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-11500	6	12	2.7GHz	4.6GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11500T	6	12	1.5GHz	3.9GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11600	6	12	2.8GHz	4.8GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11600T	6	12	1.7GHz	4.1GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i7-11700	8	16	2.5GHz	4.9GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i7-11700T	8	16	1.4GHz	4.6GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-11900	8	16	2.5GHz	5.2GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-11900T	8	16	1.5GHz	4.9GHz	16MB	DDR4-3200	Intel UHD Graphics 750

Processor Sockets

1x FCLGA1200

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Ubuntu Linux LTS
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Integrated Graphics**

- Intel UHD Graphics 630
- Intel UHD Graphics 730
- Intel UHD Graphics 750

Discrete Graphics Support

Supports up to one NVIDIA® T1000 on model with 35W processor

Discrete Graphics Offering**

Graphics	Memory	Power	Connector	SLI / NVlink
Quadro® P1000	4GB GDDR5	50W	4x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None

Monitor Support

Monitor Support

Supports multiple displays via onboard video ports and discrete graphics, the number of maximum monitors supported depends on the graphic card in use

Chipset

Chipset

Intel Q570 Chipset

Memory

Max Memory^[1]

Up to 64GB DDR4-3200

Memory Type

DDR4-3200 non-ECC

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 2x M.2 SSD

- M.2 SSD up to 2TB each

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe® NVMe®, PCIe 4.0	-	256GB / 512GB / 1TB / 2TB	Opal

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical Support

Optional one 9.0mm optical drive via optical drive kit, DVD-ROM or DVD±RW

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC233VB codec

Speakers

Single speaker, 2W x1

Power Supply

Power Supply^{**}

Power	Type	Efficiency	Key Features
170W	Adapter	89%	100V - 240V
230W	Adapter	89%	100V - 240V

DESIGN

Mechanical

Form Factor

ThinkStation P350 Tiny

Tiny (1L)

Dimensions (WxDxH)

37 x 182.9 x 179 mm (1.5 x 7.2 x 7.0 inches)

Weight

Models	Weight
Tiny only	1.4 kg (3 lbs, maximum configuration)

Bays

No bays

M.2 Slots^[1]

- Up to 2x M.2 SSD on models with 10th Core processor:
 - 1x M.2 2280 onboard slot, M.2 PCIe Gen 3
 - 1x M.2 2280 /2242 onboard slot, M.2 PCIe Gen 3
- Up to 2x M.2 SSD on models with 11th Core processor:
 - 1x M.2 2280 onboard slot, M.2 PCIe Gen 4
 - 1x M.2 2280 /2242 onboard slot, M.2 PCIe Gen 4

Expansion Slots

One PCIe slot via specific riser card:

PCIe 3.0 x16 (negotiable link width x8) and low profile for discrete graphics card,
PCIe 3.0 x4 and low profile for ethernet adapter and Thunderbolt™ adapter

Notes:

- M.2 Gen 4 SSD works at Gen 3 speed on Gen 3 slot

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

Additional Ethernet options via PCIe adapter

WLAN + Bluetooth®**^[1]

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

- Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.2 Gen 2 (Always On and fast charge)
- 1x USB-C® 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Rear Ports^[2]

- 2x USB 3.2 Gen 1 (one supports Smart Power On)
- 2x USB 3.2 Gen 2
- 1x HDMI®
- 1x DisplayPort™
- 1x Ethernet (RJ-45)

Optional Rear Ports***

- 1x Thunderbolt 4
- Optional port 1 (one of VGA / 2nd DisplayPort / 2nd HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort function)
- Optional port 2 (serial)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password

MANAGEABILITY

System Management

System Management**^{[1][2]}

- Intel vPro with Intel AMT 14.0 (vPro-enable processor and WiFi needed)
- Standard Manageability

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

Diagnostic

Diagnostic

Lenovo UEFI Bootable Diagnostics

SERVICE

Warranty

Base Warranty**^[1]

- 1-year limited onsite service
- 2-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

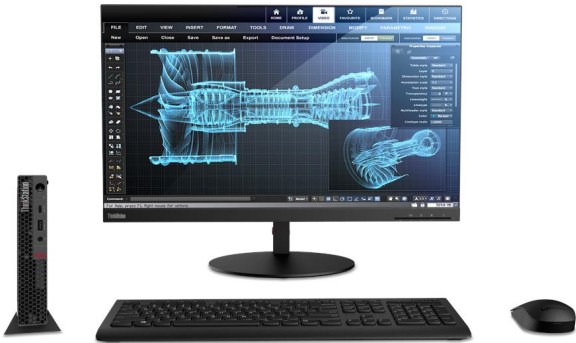
MIL-STD-810G military test passed

ISV Certifications

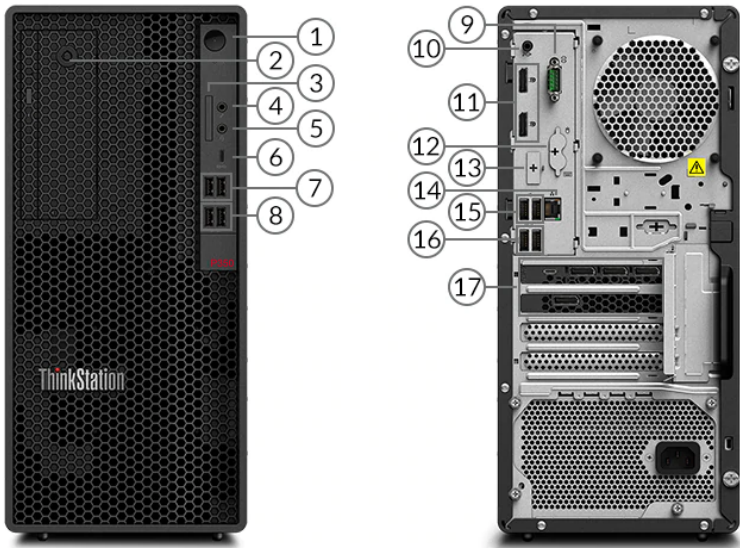
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

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OVERVIEW



1. Power button	10. Line-out (3.5mm)
2. Optical drive *	11. 2x DisplayPort
3. Card reader *	12. 2x PS/2 ports (keyboard / mouse) *
4. Microphone (3.5mm)	13. Video port (DisplayPort, HDMI, or USB-C) *
5. Headphone / microphone combo jack (3.5mm)	14. Ethernet (RJ-45)
6. USB-C 3.2 Gen 2 (data transfer only)	15. 2x USB 3.2 Gen 1
7. 2x USB 3.2 Gen 1	16. 2x USB 3.2 Gen 1
8. 2x USB 3.2 Gen 2	17. Optional ports on expansion cards *
9. Serial	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i3, 11th Generation Intel Core i5 / i7 / i9, or Intel Xeon® Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-10105	4	8	3.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10305	4	8	3.8GHz	4.5GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10325	4	8	3.9GHz	4.7GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-11400	6	12	2.6GHz	4.4GHz	12MB	DDR4-3200	Intel UHD Graphics 730
Core i5-11500	6	12	2.7GHz	4.6GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11600	6	12	2.8GHz	4.8GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i5-11600K	6	12	3.9GHz	4.9GHz	12MB	DDR4-3200	Intel UHD Graphics 750
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-10700K	8	16	3.8GHz	5.1GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-11700	8	16	2.5GHz	4.9GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i7-11700K	8	16	3.6GHz	5.0GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900K	10	20	3.7GHz	5.3GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-11900	8	16	2.5GHz	5.2GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-11900K	8	16	3.5GHz	5.3GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Xeon W-1350	6	12	3.3GHz	5.0GHz	12MB	DDR4-3200	Intel UHD Graphics P750
Xeon W-1350P	6	12	4.0GHz	5.1GHz	12MB	DDR4-3200	Intel UHD Graphics P750
Xeon W-1370	8	16	2.9GHz	5.1GHz	16MB	DDR4-3200	Intel UHD Graphics P750
Xeon W-1370P	8	16	3.6GHz	5.2GHz	16MB	DDR4-3200	Intel UHD Graphics P750
Xeon W-1390	8	16	2.8GHz	5.2GHz	16MB	DDR4-3200	Intel UHD Graphics P750
Xeon W-1390P	8	16	3.5GHz	5.3GHz	16MB	DDR4-3200	Intel UHD Graphics P750

Processor Sockets

1x FCLGA1200

Notes:

- 1. 10th Core i5, i7, and i9 processors are available after August 2021

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Pro 64 for Workstations
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Ubuntu Linux LTS
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Integrated Graphics**

- Intel UHD Graphics 630
- Intel UHD Graphics 730
- Intel UHD Graphics 750
- Intel UHD Graphics P750

Discrete Graphics Support

Supports up to one NVIDIA® RTX A5000

Discrete Graphics Offering***

Graphics	Memory	Power	Connector	SLI / NVlink
Quadro® P2200	5GB GDDR5	75W	4x DP 1.4	None
NVIDIA T400	2GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA RTX A2000	6GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A2000	12GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A4000	16GB GDDR6 with ECC	140W	4x DP 1.4a	None
NVIDIA RTX A5000	24GB GDDR6 with ECC	230W	4x DP 1.4a	None

Monitor Support

Monitor Support

Supports multiple displays via onboard video ports and discrete graphics, the number of maximum monitors supported depends on the graphic card in use

Chipset

Chipset

Intel W580 chipset

Memory

Max Memory^[1]

Up to 128GB DDR4-3200

Memory Type**

- DDR4-3200 UDIMM non-ECC
- DDR4-3200 UDIMM ECC

Memory Slots

Four DDR4 UDIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^{[1][2]}

Up to 2x 3.5" SATA HDD / 4x 2.5" SATA HDD + 3x M.2 SSD

- 3.5" HDD up to 4TB each
- 2.5" HDD up to 1TB each
- M.2 SSD up to 2TB each

Storage Type***

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 1TB FIPS	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 2TB / 4TB	-
M.2 2280 SSD	PCIe® NVMe®, PCIe 4.0	-	256GB / 512GB / 1TB / 2TB	Opal

Storage Controllers^[3]

Storage Controller	Type	Interface	RAID	Cache
Onboard Intel RST SATA RAID	Standard	SATA 6.0Gb/s	0/1	None
Onboard Intel RST PCIe RAID	Standard	PCIe NVMe	0/1	None

- Notes:
- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
 - 2. Model with Core i3 processor supports 2x M.2 SSD
 - 3. Cannot install OS in SATA RAID 1 volume.
M.2 RAID is supported on onboard M.2 PCIe Gen 3 slot and single M.2 to PCIe adapter only.

Removable Storage

Optical Support

Optional one 9.0mm optical drive, DVD-ROM, DVD±RW, and Blu-ray

Card Reader

- SD card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

Speakers

Single speaker

Power Supply

Power Supply^{**}

Power	Type	Efficiency	Key Features
500W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified
750W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified

DESIGN

Mechanical

Form Factor

Tower (17L)

Dimensions (WxDxH)

170 x 315.4 x 376 mm (6.7 x 12.4 x 14.8 inches)

Weight

9.4 kg (20.7 lbs, maximum configuration)

Bays

- 1x 3.5" disk bay (standard)
- 2x 2.5" disk bay (optional)
- 1x 3.5" disk bay (optional)

M.2 Slots^[1]

- Up to 2x M.2 SSD on model with 10th Core processor:
 - 1 via onboard slot with M.2 PCIe Gen 3
 - 1 via Single M.2 to PCIe adapter, PCIe Gen 3

- Up to 3x M.2 SSD on models with Xeon or 11th Core processor:
 - 2 via onboard slots with 1x M.2 PCIe Gen 4 and 1x M.2 PCIe Gen 3
 - 1 via Single M.2 to PCIe adapter, PCIe Gen 3

Expansion Slots

- One PCIe 4.0 x16
- One PCIe 3.0 x1
- One PCIe 3.0 x16 (x4 lanes)

Notes:

1. M.2 Gen 4 SSD works at Gen 3 speed on Gen 3 slot

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet***

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- Gigabit Ethernet, Intel I210-T1, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel I350-F2, 2x Fiber, PCIe x4
- Gigabit Ethernet, Intel I350-T2, 2x RJ-45, PCIe x4
- 10GBASE-T Ethernet, Marvell AQtion AQN-107, 1x RJ-45, PCIe x4
- Additional Ethernet options via PCIe adapter

WLAN + Bluetooth®^[1]**

- Mediatek Wi-Fi® 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Front Ports**

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Rear Ports^[2]

- 4x USB 3.2 Gen 1 (one supports Smart Power On)
- 2x DisplayPort™
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports***

- 1x USB-C (video)
- 1x USB-C 3.2 Gen 2x2 (via USB-C expansion card, PCIe x4)
- 2x USB 2.0
- 2x USB 3.2 Gen 1
- 1x HDMI®
- 1x DP
- 1x Thunderbolt™
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2
- None

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks^[1]

- (Optional) Cable lock
- (Optional) E-lock
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password

Notes:

1. E-lock is not available in EMEA

MANAGEABILITY

System Management

System Management^{**[1][2]}

- Intel vPro with Intel AMT 14.0 (vPro-enable processor and WiFi needed)
- Standard Manageability

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

Diagnostic

Diagnostic

Lenovo UEFI Bootable Diagnostics

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year limited onsite service
- 2-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- (Optional) EPEAT™ Gold
- (Optional) EPEAT Silver
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

ISV Certifications

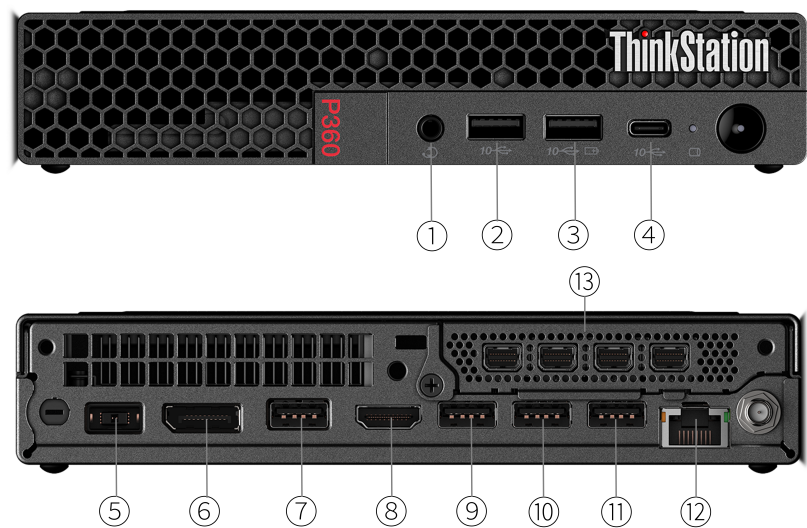
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	8. HDMI 2.1 TMDS
2. USB 3.2 Gen 2	9. USB 3.2 Gen 1 (with Smart Power On feature)
3. USB 3.2 Gen 2 (Always On and fast charge)	10. USB 3.2 Gen 2
4. USB-C 3.2 Gen 2	11. USB 3.2 Gen 2
5. Power connector	12. Ethernet (RJ-45)
6. DisplayPort 1.4	13. 2 Optional ports or expansion cards *
7. USB 3.2 Gen 1	

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3-12100T	4 (4 P-core + 0 E-core)	8	P-core 2.2GHz	P-core 4.1GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3-12300T	4 (4 P-core + 0 E-core)	8	P-core 2.3GHz	P-core 4.2GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12400T	6 (6 P-core + 0 E-core)	12	P-core 1.8GHz	P-core 4.2GHz	18MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12500T	6 (6 P-core + 0 E-core)	12	P-core 2.0GHz	P-core 4.4GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12600T	6 (6 P-core + 0 E-core)	12	P-core 2.1GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700T	12 (8 P-core + 4 E-core)	20	P-core 1.4GHz / E-core 1.0GHz	P-core 4.6GHz / E-core 3.4GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900T	16 (8 P-core + 8 E-core)	24	P-core 1.4GHz / E-core 1.0GHz	P-core 4.8GHz / E-core 3.6GHz	30MB	DDR5-4800	Intel UHD Graphics 770

Processor Sockets

1x FCLGA1700

Operating System

Operating System**

- Windows® 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Integrated Graphics**

- Intel UHD Graphics 730
- Intel UHD Graphics 770
- None

Discrete Graphics Support

Supports up to one NVIDIA® T1000 on models with 35W processor

Discrete Graphics Offering***

Graphics	Memory	Power	Connector	SLI / NVlink
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None

Monitor Support

Monitor Support

Onboard graphics supports up to 4 independent displays via (onboard DP, onboard HDMI®, punch out port 1 [VGA / HDMI / DP / USB-C®], and punch out port 2 [VGA / HDMI / DP]); the number of maximum monitors also depends on the discrete graphic card in use

Chipset

Chipset

Intel Q670 Chipset

Memory

Max Memory^[1]

Up to 64GB DDR5-4800

Memory Type

DDR5-4800 non-ECC

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 2x M.2 SSD, up to 2TB each

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe® NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2

Storage Controllers

Storage Controller	Type	Interface	RAID	Cache
Integrated NVMe controller	Standard	PCIe NVMe	0/1	None

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical Support

Optional one 9.0mm optical drive via optical drive kit, DVD-ROM or DVD±RW

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC256VB codec

Speakers**

- Single speaker
- Single speaker, premium

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
170W	Adapter	90%	100V - 240V
230W	Adapter	90%	100V - 240V

DESIGN

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 182.9 x 37mm with rubber feet (7.05 x 7.2 x 1.5 inches with rubber feet)
Tiny & ODD	204.2 x 186.6 x 64 mm with rubber feet (8.04 x 7.35 x 2.52 inches with rubber feet)

Weight

Models	Weight
Tiny only	1.4 kg (3 lbs, maximum configuration)

Bays

No bays

M.2 Slots

- Two M.2 PCIe Gen 4x4 slots (for SSD)
- One M.2 slot (for WLAN)

Expansion Slots

One PCIe 4.0 x8, low-profile

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

- Gigabit Ethernet, Intel I350-T2, 2x RJ-45, PCIe x4
- Gigabit Ethernet, Intel I350-T4, 4x RJ-45, PCIe x4
- 2.5 Gigabit Ethernet, Realtek RTL8125BGS, 1x RJ-45

WLAN + Bluetooth®**[1]

- AMD RZ616, Wi-Fi® 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

- Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

ThinkStation P360 Tiny

- 1x USB 3.2 Gen 2
- 1x USB 3.2 Gen 2 (Always On and 5V@2.1A charging)
- 1x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Rear Ports^[2]

- 2x USB 3.2 Gen 1 (one supports Smart Power On)
- 2x USB 3.2 Gen 2
- 1x HDMI 2.1 TMDS
- 1x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)

Optional Rear Ports

- Punch out port 1 (one of VGA / DisplayPort / HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort and PD 3.0 functions)
- 2x USB 3.2 Gen 1 (occupies port 1 and 2)
- 1x 2.5GbE RJ-45, via RTL8125BGS
- 2x GbE RJ-45, via I350-T2
- 4x GbE RJ-45, via I350-T4
- Punch out port 2 (one of VGA / DisplayPort / HDMI / serial / RJ-45)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Certificate based BIOS management
- Cover presence switch
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management^{**[1][2]}

- Intel vPro Enterprise with Intel AMT 16.0
- Standard Manageability

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**^[1]

- 1-year limited onsite service
- 2-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

ISV Certifications

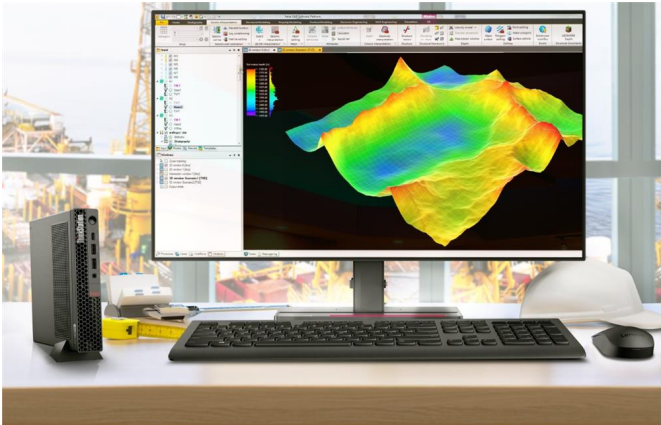
ISV Certifications

Please visit [ISV certifications for Lenovo Workstations](#)

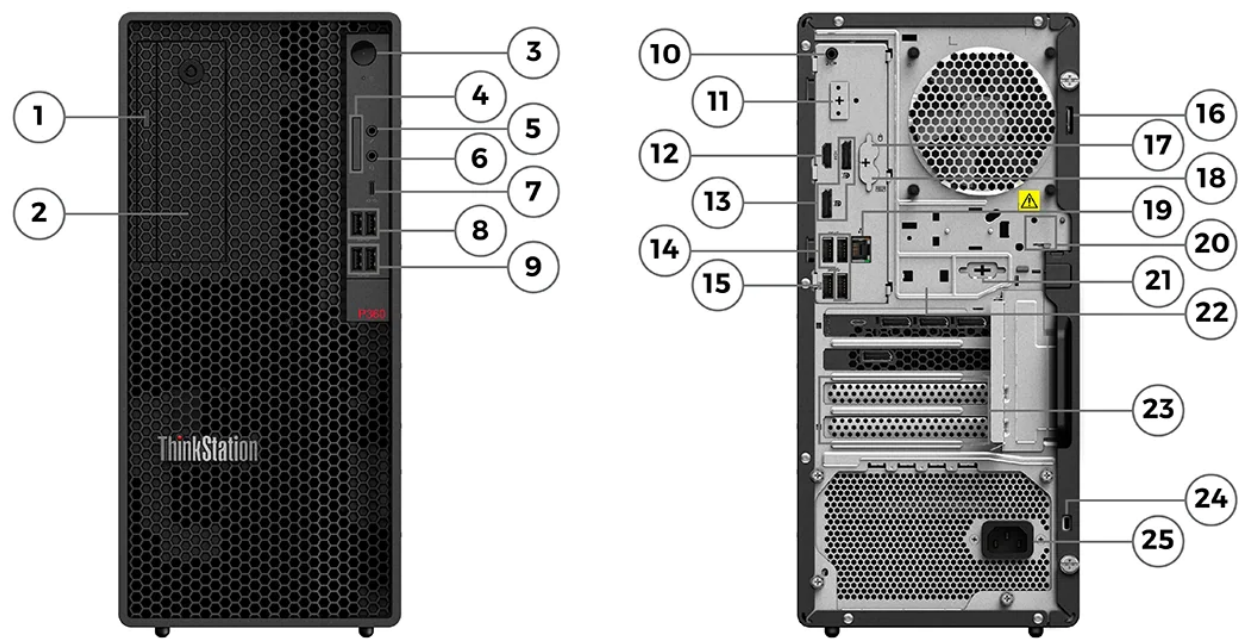
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OVERVIEW



1. Optical drive *	14. 3x USB 3.2 Gen 1
2. Flex bay *	15. USB 3.2 Gen 1 (with Smart Power On feature)
3. Power button	16. Padlock loop *
4. Card reader *	17. PS/2 port (mouse) *
5. Microphone (3.5mm)	18. PS/2 port (keyboard) *
6. Headphone / microphone combo jack (3.5mm)	19. Ethernet (RJ-45)
7. USB-C 3.2 Gen 2 (data transfer only)	20. E-lock slot *
8. 2x USB 3.2 Gen 1	21. Serial (9-pin) *
9. 2x USB 3.2 Gen 2	22. Smart cable clip slots *
10. Line-out (3.5mm)	23. Optional ports on expansion cards *
11. Flex IO *	24. Kensington Security Slot
12. HDMI	25. Power connector
13. 2x DisplayPort	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12600K	10 (6 P-core + 4 E-core)	16	P-core 3.7GHz / E-core 2.8GHz	P-core 4.9GHz / E-core 3.6GHz	20MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700K	12 (8 P-core + 4 E-core)	20	P-core 3.6GHz / E-core 2.7GHz	P-core 4.9GHz / E-core 3.8GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900K	16 (8 P-core + 8 E-core)	24	P-core 3.2GHz / E-core 2.4GHz	P-core 5.1GHz / E-core 3.9GHz	30MB	DDR5-4800	Intel UHD Graphics 770

Processor Sockets

1x FCLGA1700

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 DG Windows 10 Pro 64
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Integrated Graphics**

- Intel UHD Graphics 730
- Intel UHD Graphics 770

Discrete Graphics Support

Supports up to one NVIDIA® RTX A5000 or two NVIDIA T1000

Discrete Graphics Offering***[1]

Graphics	Memory	Power	Connector	SLI / NVlink
NVIDIA T400	2GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None

NVIDIA RTX A2000	6GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A2000	12GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A4000	16GB GDDR6 with ECC	140W	4x DP 1.4a	None
NVIDIA RTX A4500	20GB GDDR6 with ECC	200W	4x DP 1.4	None
NVIDIA RTX A5000	24GB GDDR6 with ECC	230W	4x DP 1.4a	None

Notes:

1. NVIDIA RTX A4500 will be available on April 2022

Monitor Support

Monitor Support

Onboard graphics supports up to 4 independent displays via onboard two DP, one HDMI® and one optional USB-C®; the number of maximum monitors also depends on the discrete graphic card in use

Chipset

Chipset

Intel W680 chipset

Memory

Max Memory^[1]

Up to 128GB

Memory Type^{**[2]}

- DDR5-4800 ECC
- DDR5-4800 non-ECC

Memory Slots

Four DDR5 UDIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and ECC capable processor

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

2. ThinkStation® P360 Tower comes with DDR5-4800 memory and will run at DDR5-4400, DDR5-4000, and DDR5-3600 due to platform limitation:

1x 8GB / 2x 8GB / 1x 16GB / 2x 16GB / 2x 32GB configurations run at DDR5-4400;

4x 8GB / 4x 16GB configurations run at DDR5-4000;

4x 32GB configuration runs at DDR5-3600

Storage

Storage Support^[1]

Up to 2x 3.5" SATA HDD or 4x 2.5" SATA HDD; also supports up to 3x M.2 SSD (2 by onboard, 1 by M.2 to PCIe® adapter)

- 3.5" HDD up to 4TB each
- 2.5" HDD up to 1TB each
- Onboard M.2 SSD up to 4TB each
- M.2 SSD by M.2 to PCIe adapter up to 2TB

Storage Type^{***[2]}

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 1TB FIPS	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 2TB / 4TB	-
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB / 4TB	Opal2

Storage Controllers^[3]

Storage Controller	Type	Interface	RAID	Cache
Integrated NVMe controller	Standard	PCIe NVMe	0/1	None

Integrated SATA controller	Standard	SATA 6.0Gb/s	0/1/10/5	None
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- Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
 2. When using M.2 to PCIe adapter, M.2 SSD works at PCIe Gen 3.
4TB M.2 SSD is pending availability.
 3. NVMe RAID is supported on onboard M.2 slots.
SATA RAID 5 and 10 are supported on 2.5" HDD.

Removable Storage

Optical Support

Optional one 9.0mm optical drive, DVD-ROM, DVD±RW, and Blu-ray

Card Reader

- SD card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC897Q-CG codec

Speakers

Single speaker

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
500W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified
750W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified

DESIGN

Mechanical

Form Factor

Tower (17L)

Dimensions (WxDxH)

170 x 315.4 x 376 mm (6.7 x 12.4 x 14.8 inches)

Weight

Starting at 9.7 kg (21.38 lbs)

Bays

- 1x 3.5" disk bay (standard)
- 2x 2.5" disk bay (optional)
- 1x 3.5" disk bay (optional)

M.2 Slots

- Up to 3x M.2 SSD:
 - 2 via onboard M.2 PCIe Gen 4 slots
 - 1 via Single M.2 to PCIe adapter, PCIe Gen 3
- One M.2 slot for WiFi

Expansion Slots

- One PCIe 4.0 x16
- One PCIe 4.0 x16 (x4 lanes)
- Two PCIe 3.0 x1 (open ended)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
- Gigabit Ethernet, Intel I210-T1, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Intel I350-T2, 2x RJ-45, PCIe x4

WLAN + Bluetooth®**^[1]

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Rear Ports^[2]

- 4x USB 3.2 Gen 1 (one supports Smart Power On)
- 1x HDMI 2.1 TMDS
- 2x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports

- 1x HDMI 2.1 TMDS (Flex IO)
- 1x VGA (Flex IO)
- 1x USB-C 3.2 Gen 1 with DisplayPort function (Flex IO)
- 1x DP 1.2 (Flex IO)
- 1x USB-C 3.2 Gen 2x2 (via USB-C expansion card, PCIe x4)
- 2x USB 3.2 Gen 1
- 1x Thunderbolt™ 4
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) Cable lock
- (Optional) E-lock
- Kensington® Security Slot, 3 x 7 mm
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password

MANAGEABILITY

System Management

System Management^{[1][2]}**

- Intel vPro Enterprise with Intel AMT 16.0
- Standard Manageability

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^[1]**

- 1-year limited onsite service
- 2-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0

- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test in progress

ISV Certifications

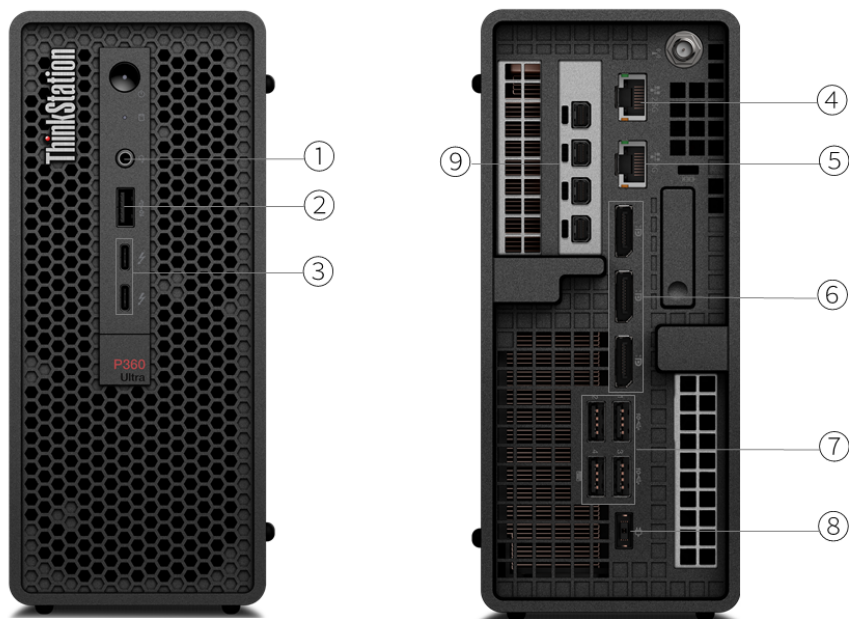
ISV Certifications

Please visit [ISV certifications for Lenovo Workstations](#)

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OVERVIEW



1. Headphone (3.5mm)	6. 3x DisplayPort
2. USB 3.2 Gen 2	7. 4x USB 3.2 Gen 2
3. 2x Thunderbolt 4	8. Power connector
4. Ethernet (2.5GbE RJ-45)	9. Optional ports on expansion cards *
5. Ethernet (GbE RJ-45)	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i3 / i5 / i7 / i9 processor, supports processors up to 16 cores; up to 5.2GHz; up to 125W TDP

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3-12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12400T	6 (6 P-core + 0 E-core)	12	P-core 1.8GHz	P-core 4.2GHz	18MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR5-4800	Intel UHD Graphics 730
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12600K	10 (6 P-core + 4 E-core)	16	P-core 3.7GHz / E-core 2.8GHz	P-core 4.9GHz / E-core 3.6GHz	20MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700K	12 (8 P-core + 4 E-core)	20	P-core 3.6GHz / E-core 2.7GHz	P-core 4.9GHz / E-core 3.8GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i7-12700T	12 (8 P-core + 4 E-core)	20	P-core 1.4GHz / E-core 1.0GHz	P-core 4.6GHz / E-core 3.4GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	30MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900K	16 (8 P-core + 8 E-core)	24	P-core 3.2GHz / E-core 2.4GHz	P-core 5.1GHz / E-core 3.9GHz	30MB	DDR5-4800	Intel UHD Graphics 770
Core i9-12900T	16 (8 P-core + 8 E-core)	24	P-core 1.4GHz / E-core 1.0GHz	P-core 4.8GHz / E-core 3.6GHz	30MB	DDR5-4800	Intel UHD Graphics 770

Processor Sockets

1x FCLGA1700

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Integrated Graphics**

- Intel UHD Graphics 730
- Intel UHD Graphics 770

Discrete Graphics Support

Supports up to one NVIDIA® RTX A5000 Laptop GPU (available on August 2022, up to RTX A2000 at launch)

Discrete Graphics Offering**

Graphics	Memory	Power	Connector	SLI / NVlink
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA RTX A2000	12GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A5000 Laptop GPU	16GB GDDR6	115W	4x miniDP 1.4a	None

Monitor Support

Monitor Support

Supports up to 8 independent displays, 4 via onboard ports (3x DP and 2x Thunderbolt™, simultaneously supports 4 display) and 4 via discrete graphics.

Onboard ports support (with max simultaneous displays):

- DP supports up to 4096x2160@60Hz
- Thunderbolt supports up to 5120x2880@60Hz

Discrete graphics ports support (with max simultaneous displays):

- miniDP supports up to 5120x2880@60Hz

Chipset

Chipset

Intel W680 chipset

Memory

Max Memory^[1]

Up to 128GB

Memory Type^{**[2]}

- DDR5-4800 ECC
- DDR5-4800 non-ECC

Memory Slots

Four DDR5 SO-DIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and ECC capable processor

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. ThinkStation® P360 Ultra comes with DDR5-4800 memory and will run at DDR5-4000 or DDR5-3600 due to platform limitation: 4x 32GB or four memory DIMMs with WIFI configuration runs at DDR5-3600; other configurations run at DDR5-4000

Storage

Storage Support^[1]

Up to 1x 2.5" HDD + 2x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 SSD up to 4TB each

Storage Type^{***}

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 1TB FIPS	-
M.2 2280 SSD	PCIe® NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB / 4TB	Opal2

Storage Controllers^{***}

Storage Controller	Type	Interface	RAID	Cache
Integrated NVMe controller	Standard	PCIe NVMe	0/1	None
Integrated SATA controller	Standard	SATA 6.0Gb/s	-	None

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC897-Q codec

Speakers

Single speaker

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
170W	Adapter	90%	100V - 240V
230W	Adapter	90%	100V - 240V
300W	Adapter	90%	100V - 240V

DESIGN

Mechanical

Form Factor

Mini-tower (3.9L)

Dimensions (WxDxH)

86 x 223 x 202 mm (3.4 x 8.7 x 7.9 inches)

Weight

3.6 kg (7.94 lbs, maximum configuration)

Bays

1x 2.5" disk bay (optional, comes with disk)

M.2 Slots

- Two M.2 PCIe Gen 4x4 slots (for SSD)
- One M.2 slot (for WLAN)

Expansion Slots

- One PCIe 4.0 x16
- One PCIe 3.0 x8 (x4 lanes)

CONNECTIVITY

Network

Onboard Ethernet

Two Ethernet, 2.5GbE + GbE, Intel Ethernet Connection I225-LM and I210-AT, 2x RJ-45, supports Wake-on-LAN

Optional Ethernet

Gigabit Ethernet, Intel I350-T2, 2x RJ-45, PCIe x4

WLAN + Bluetooth®**[1]

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports[1]

Front Ports

- 1x USB 3.2 Gen 2

- 2x Thunderbolt 4
- 1x headphone / microphone combo jack (3.5mm)

Rear Ports^[2]

- 1x Ethernet (GbE RJ-45)
- 1x Ethernet (2.5GbE RJ-45)
- 4x USB 3.2 Gen 2
- 3x DisplayPort™ 1.2

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password
- UEFI Secure Boot
- Self-healing BIOS

MANAGEABILITY

System Management

System Management^{**[1]}

- Intel vPro Enterprise with Intel AMT 16.0
- Standard Manageability

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year limited onsite service
- 2-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified 9.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test in progress

ISV Certifications

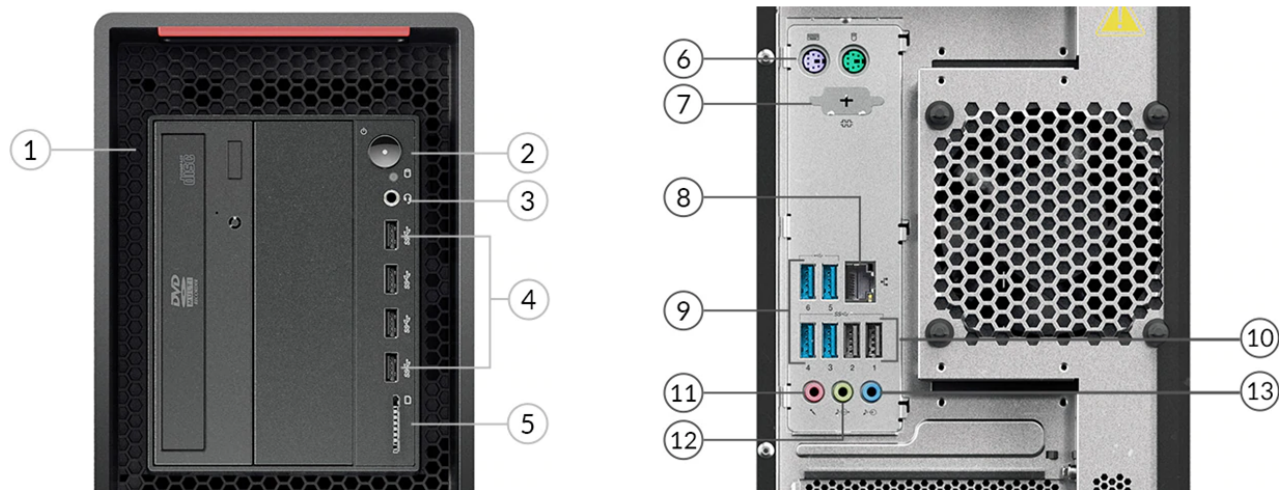
ISV Certifications

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OVERVIEW



1. 2x Flex bay	8. Ethernet (RJ-45)
2. Power button	9. 4x USB 3.1 Gen 1
3. Headphone / microphone combo jack (3.5mm)	10. 2x USB 2.0
4. 4x USB 3.1 Gen 1	11. Microphone (3.5mm)
5. Card reader	12. Line-out (3.5mm)
6. 2x PS/2 ports (keyboard / mouse)	13. Line-in (3.5mm)
7. Serial *	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Up to one Intel® Xeon® W-2100 / W-2200 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Xeon W-2102	4	4	2.9GHz	-	8.25MB	DDR4-2400	-
Xeon W-2104	4	4	3.2GHz	-	8.25MB	DDR4-2400	-
Xeon W-2123	4	8	3.6GHz	3.9GHz	8.25MB	DDR4-2666	-
Xeon W-2125	4	8	4.0GHz	4.5GHz	8.25MB	DDR4-2666	-
Xeon W-2133	6	12	3.6GHz	3.9GHz	8.25MB	DDR4-2666	-
Xeon W-2135	6	12	3.7GHz	4.5GHz	8.25MB	DDR4-2666	-
Xeon W-2145	8	16	3.7GHz	4.5GHz	11MB	DDR4-2666	-
Xeon W-2155	10	20	3.3GHz	4.5GHz	13.75MB	DDR4-2666	-
Xeon W-2175	14	28	2.5GHz	4.3GHz	19MB	DDR4-2666	-
Xeon W-2195	18	36	2.3GHz	4.3GHz	24.75MB	DDR4-2666	-
Xeon W-2223	4	8	3.6GHz	3.9GHz	8.25MB	DDR4 2666	-
Xeon W-2225	4	8	4.1GHz	4.6GHz	8.25MB	DDR4 2933	-
Xeon W-2235	6	12	3.8GHz	4.6GHz	8.25MB	DDR4 2933	-
Xeon W-2245	8	16	3.9GHz	4.5GHz	16.5MB	DDR4 2933	-
Xeon W-2255	10	20	3.7GHz	4.5GHz	19.25MB	DDR4 2933	-
Xeon W-2265	12	24	3.5GHz	4.6GHz	19.25MB	DDR4 2933	-
Xeon W-2275	14	28	3.3GHz	4.6GHz	19.25MB	DDR4 2933	-
Xeon W-2295	18	36	3.0GHz	4.6GHz	24.75MB	DDR4 2933	-

Processor Sockets

1x FCLGA2066

Operating System

Operating System**

- Windows® 11 Pro 64 for Workstations
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64 for Workstations
- Ubuntu Linux LTS
- No operating system

Graphics

Discrete Graphics Support

Supports up to one NVIDIA® Quadro® RTX 8000 or two NVIDIA Quadro RTX 6000 with NVLink

Discrete Graphics Offering***

Graphics	Memory	Power	Connector	SLI / NVlink
Quadro P400	2GB GDDR5	30W	3x miniDP 1.4	None
Quadro P600	2GB GDDR5	45W	4x miniDP	None
Quadro P620	2GB GDDR5	40W	4x miniDP 1.4	None
Quadro P1000	4GB GDDR5	50W	4x miniDP 1.4	None
Quadro P2000	5GB GDDR5	75W	4x DP	None
Quadro P2200	5GB GDDR5	75W	4x DP 1.4	None

Quadro P4000	8GB GDDR5	120W	4x DP 1.4	None
Quadro P5000	16GB GDDR5X	180W	1x DVI-D DL, 4x DP 1.4	SLI
NVIDIA T400	2GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None
Quadro RTX 4000	8GB GDDR6	160W	3x DP 1.4, 1x VirtualLink	None
Quadro RTX 5000	16GB GDDR6	265W	4x DP 1.4, 1x VirtualLink	NVLink
Quadro RTX 6000	24GB GDDR6	295W	4x DP 1.4, 1x VirtualLink	NVLink
Quadro RTX 8000	48GB GDDR6	295W	4x DP 1.4, 1x VirtualLink	None
NVIDIA RTX A2000	6GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A2000	12GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A4000	16GB GDDR6 with ECC	140W	4x DP 1.4a	None
NVIDIA RTX A4500	20GB GDDR6 with ECC	200W	4x DP 1.4	None
NVIDIA RTX A5000	24GB GDDR6 with ECC	230W	4x DP 1.4a	NVLink
NVIDIA RTX A6000	48GB GDDR6 with ECC	300W	4x DP 1.4a	NVLink
Quadro GP100	16GB HBM2	235W	1x DVI-D DL, 4x DP	NVLink
Quadro GV100	32GB HBM2	250W	4x DP 1.4	None

Monitor Support

Monitor Support

Supports multiple displays via discrete graphics, the number of maximum monitors supported depends on the graphic card in use

Chipset

Chipset

Intel C422 chipset

Memory

Max Memory^[1]

- Up to 256GB (8x 32GB RDIMMs) DDR4-2666
- Up to 512GB (8x 64GB RDIMMs) DDR4-2933

Memory Type**

- DDR4-2666 RDIMM ECC
- DDR4-2933 RDIMM ECC

Memory Slots

8 DDR4 DIMM slots, 4 channels capable

Memory Protection

ECC

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to 6x 3.5" SATA HDD / 2.5" SATA HDD / 2.5" SATA SSD + 9x M.2 PCIe® SSD + 1x PCIe AIC SSD

- 3.5" HDD up to 6TB each
- 2.5" SATA HDD up to 500GB each
- 2.5" SATA SSD up to 2TB each

- 2.5" SAS HDD up to 600GB each
- M.2 PCIe SSD up to 2TB each
- PCIe AIC SSD up to 480GB each

Storage Type***

Disk Type	Interface	RPM	Offering
2.5" SAS HDD	SAS 12Gb/s	10K	300GB / 600GB
2.5" SATA SSD	SATA 6Gb/s	-	256GB / 512GB / 1TB / 2TB
2.5" SATA HDD	SATA 6Gb/s	7.2K	500GB / 500GB FIPS
3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 2TB / 4TB / 6TB
M.2 PCIe SSD	PCIe NVMe®	-	256GB / 512GB / 1TB / 2TB
PCIe AIC SSD	PCIe NVMe	-	480GB

Storage Controllers

Storage Controller	Type	Interface	RAID	Cache
Onboard Intel RSTe SATA RAID	Standard	SATA 6.0Gb/s	0/1/10/5	None
9440-8i PCIe	Optional	SAS 12.0Gb/s, SATA 6.0Gb/s	0/1/10/5	None
9460-16i PCIe	Optional	SAS 12.0Gb/s, SATA 6.0Gb/s	0/1/10/5/6	4GB DDR4, SuperCap
NVMe Basic	Optional	PCIe NVMe	0/1/10	None
NVMe Premium	Optional	PCIe NVMe	0/1/10/5	None
NVMe for Intel SSD	Optional	PCIe NVMe	0/1/10/5	None

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical Support

Up to two HH or 9.0mm optical drive, DVD-ROM, DVD±RW, and Blu-ray

Card Reader

- SD card reader
- 15-in-1 card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC662 codec

Speakers

Single speaker

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
690W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified
900W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified
1000W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified

DESIGN

Mechanical

Form Factor

Tower (33L)

Dimensions (WxDxH)

165 x 460 x 440 mm (6.5 x 18.1 x 17.3 inches, with feet)

Weight

24 kg (52.91 lbs, maximum configuration)

Bays

- 2x 3.5" disk bay (standard)
- 4x 3.5" disk bay (optional):
 - 2 bays come with 3rd disk or Storage Bay Upgrade Kit
 - 2 bays via flex bay

Flex Bays

2x flex bays, supports the following:

- 2x half-height optical drives
- 2x 5.25" 9.0mm optical drives
- 1x 5.25" 9.0mm optical drive + 2x 3.5"/2.5" SATA SSD/HDD
- 1x 3.5"/2.5" SATA SSD/HDD with Front Access Storage Enclosure
- 1x flex module for the following options:

Tray 1: 9.0mm optical

Tray 2: 15-in-1 USB 3.1 Gen 1 reader, 2x Thunderbolt™, or 4-digit diagnostic display

Port 1 and 2: Front USB 3.1 Gen 1 Type-C or eSATA

M.2 Slots

Up to 9x M.2 SSD:

- 2 via onboard slots
- 4 via Quad M.2 to PCIe adapter
- 3 via Single M.2 to PCIe adapter

Expansion Slots

- One PCI
- One PCIe 3.0 x8
- Two PCIe 3.0 x4
- Two PCIe 3.0 x16

Expansion Slots Offering

Slot 1: PCIe 3.0 x8, full height, full length, 25W, open ended, by CPU

Slot 2: PCIe 3.0 x16, full height, full length, 75W, double-width, by CPU

Slot 3: PCIe 3.0 x4, full height, half length, 25W, open ended, by PCH

Slot 4: PCIe 3.0 x16, full height, full length, 75W, double-width, by CPU

Slot 5: PCI, full height, full length, 25W

Slot 6: PCIe 3.0 x4, full height, half length, 25W, open ended, by PCH

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

Additional Ethernet options via PCIe adapter

WLAN + Bluetooth^[1]

- Intel Dual-Band Wireless-AC 8265, 802.11ac Dual-Band 2x2 Wi-Fi® + Bluetooth 4.2
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.1 Gen 1 (Always On and fast charge)

- 3x USB 3.1 Gen 1
- 1x headphone / microphone combo jack (3.5mm)

Optional Front Ports^{***}

- 1x eSATA (with flex module)
- 2x Thunderbolt (with flex module, USB-C® form, one supports video-out)
- 1x USB-C 3.1 Gen 1 (with flex module)

Rear Ports^[2]

- 2x USB 2.0
- 4x USB 3.1 Gen 1
- 2x PS/2 ports (keyboard / mouse)
- 1x Ethernet (RJ-45)
- 1x line-in (3.5mm)
- 1x line-out (3.5mm)
- 1x microphone (3.5mm)

Optional Rear Ports^{***}

- 2x USB-C 3.1 Gen 2 (via 2-port USB-C expansion card)
- 1x Thunderbolt
- 1x serial

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) Access Panel Lock Kit with Common Key
- (Optional) Access Panel Lock Kit with Unique Key
- Kensington® Security Slot, 3 x 7 mm

BIOS Security

- Administrator password
- Power-on password

MANAGEABILITY

System Management

System Management^{[1][2]}

Intel vPro with Intel AMT 11.0

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

Diagnostic

Diagnostic

- Photo-audio transfer with Lenovo PC Diagnostics for Android™ and iOS
- ThinkStation® Diagnostics for Windows
- Front 4-digit diagnostic
- Lenovo UEFI Bootable Diagnostics

- None

SERVICE

Warranty

Base Warranty**^[1]

- 1-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0 (on model 30BE00B7US)
- GREENGUARD®
- RoHS compliant

ISV Certifications

ISV Certifications

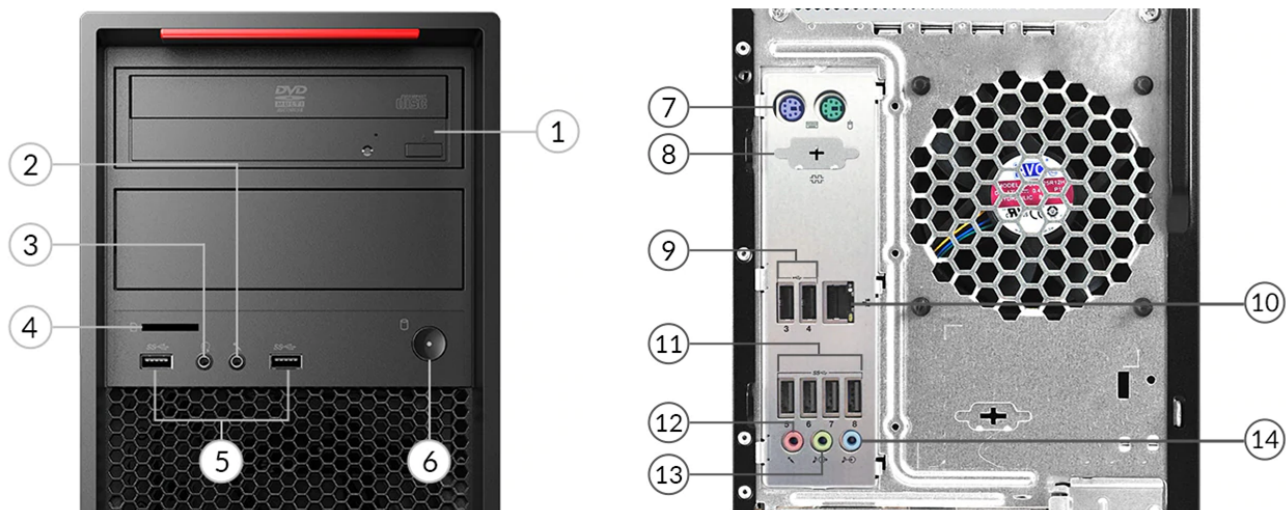
Please visit www.thinkworkstations.com/isv-certifications/

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Optical drive *	8. Serial *
2. Microphone (3.5mm)	9. 2x USB 2.0
3. Headphone (3.5mm)	10. Ethernet (RJ-45)
4. Card reader	11. 4x USB 3.1 Gen 1
5. 2x USB 3.1 Gen 1	12. Microphone (3.5mm)
6. Power button	13. Line-out (3.5mm)
7. 2x PS/2 ports (keyboard / mouse)	14. Line-in (3.5mm)

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Up to one Intel® Xeon® W-2100 / W-2200 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Xeon W-2102	4	4	2.9GHz	-	8.25MB	DDR4-2400	-
Xeon W-2104	4	4	3.2GHz	-	8.25MB	DDR4-2400	-
Xeon W-2123	4	8	3.6GHz	3.9GHz	8.25MB	DDR4-2666	-
Xeon W-2125	4	8	4.0GHz	4.5GHz	8.25MB	DDR4-2666	-
Xeon W-2133	6	12	3.6GHz	3.9GHz	8.25MB	DDR4-2666	-
Xeon W-2135	6	12	3.7GHz	4.5GHz	8.25MB	DDR4-2666	-
Xeon W-2145	8	16	3.7GHz	4.5GHz	11MB	DDR4-2666	-
Xeon W-2155	10	20	3.3GHz	4.5GHz	13.75MB	DDR4-2666	-
Xeon W-2175	14	28	2.5GHz	4.3GHz	19MB	DDR4-2666	-
Xeon W-2195	18	36	2.3GHz	4.3GHz	24.75MB	DDR4-2666	-
Xeon W-2223	4	8	3.6GHz	3.9GHz	8.25MB	DDR4 2666	-
Xeon W-2225	4	8	4.1GHz	4.6GHz	8.25MB	DDR4 2933	-
Xeon W-2235	6	12	3.8GHz	4.6GHz	8.25MB	DDR4 2933	-
Xeon W-2245	8	16	3.9GHz	4.5GHz	16.5MB	DDR4 2933	-

Processor Sockets

1x FCLGA2066

Operating System

Operating System**

- Windows® 11 Pro 64 for Workstations
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64 for Workstations
- Ubuntu Linux LTS
- No operating system

Graphics

Discrete Graphics Support

Supports up to one NVIDIA® Quadro® RTX 5000 or two NVIDIA Quadro P4000

Discrete Graphics Offering***[1]

Graphics	Memory	Power	Connector	SLI / NVlink
Quadro P400	2GB GDDR5	30W	3x miniDP 1.4	None
Quadro P600	2GB GDDR5	45W	4x miniDP	None
Quadro P620	2GB GDDR5	40W	4x miniDP 1.4	None
Quadro P1000	4GB GDDR5	50W	4x miniDP 1.4	None
Quadro P2000	5GB GDDR5	75W	4x DP	None
Quadro P2200	5GB GDDR5	75W	4x DP 1.4	None
Quadro P4000	8GB GDDR5	120W	4x DP 1.4	None
Quadro P5000	16GB GDDR5X	180W	1x DVI-D DL, 4x DP 1.4	None
NVIDIA T400	2GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None

NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None
Quadro RTX 4000	8GB GDDR6	160W	3x DP 1.4, 1x VirtualLink	None
Quadro RTX 5000	16GB GDDR6	265W	4x DP 1.4, 1x VirtualLink	None
NVIDIA RTX A2000	6GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A2000	12GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A4000	16GB GDDR6 with ECC	140W	4x DP 1.4a	None
NVIDIA RTX A4500	20GB GDDR6 with ECC	200W	4x DP 1.4	None
NVIDIA RTX A5000	24GB GDDR6 with ECC	230W	4x DP 1.4a	None

Notes:

1. NVIDIA Quadro RTX 5000 supports manufacture configure only, none standalone option is available.

Monitor Support

Monitor Support

Supports multiple displays via discrete graphics, the number of maximum monitors supported depends on the graphic card in use

Chipset

Chipset

Intel C422 chipset

Memory

Max Memory^[1]

- Up to 128GB (4x 32GB DDR4-2666 RDIMMs)
- Up to 256GB (4x 64GB RDIMMs) DDR4-2933

Memory Type^{**}

- DDR4-2666 RDIMM ECC
- DDR4-2933 RDIMM ECC

Memory Slots

4 DDR4 DIMM slots, 4 channels capable

Memory Protection

ECC

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to 4x 3.5" SATA HDD / 2.5" SATA HDD / 2.5" SATA SSD + 5x M.2 PCIe® SSD

- 3.5" HDD up to 6TB each
- 2.5" SATA HDD up to 500GB each
- 2.5" SATA SSD up to 2TB each
- 2.5" SAS HDD up to 600GB each
- M.2 SSD up to 2TB each

Storage Type^{***}

Disk Type	Interface	RPM	Offering
2.5" SAS HDD	SAS 12Gb/s	10K	300GB / 600GB
2.5" SATA SSD	SATA 6Gb/s	-	256GB / 512GB / 1TB / 2TB
2.5" SATA HDD	SATA 6Gb/s	7.2K	500GB / 500GB FIPS

3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 2TB / 4TB / 6TB
M.2 PCIe SSD	PCIe NVMe®	-	256GB / 512GB / 1TB / 2TB

Storage Controllers

Storage Controller	Type	Interface	RAID	Cache
Onboard Intel RSTe SATA RAID	Standard	SATA 6.0Gb/s	0/1/10/5	None
9440-8i PCIe	Optional	SAS 12.0Gb/s, SATA 6.0Gb/s	0/1/10/5	None
NVMe Basic	Optional	PCIe NVMe	0/1/10	None
NVMe for Intel SSD	Optional	PCIe NVMe	0/1/10/5	None

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical Support

Up to two HH or 9.0mm optical drive, DVD-ROM, DVD±RW, and Blu-ray

Card Reader

- SD card reader
- 15-in-1 card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC662 codec

Speakers

Single speaker

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
500W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified
625W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified

DESIGN

Mechanical

Form Factor

Tower (25L)

Dimensions (WxDxH)

175 x 426 x 376 mm (6.89 x 16.77 x 14.8 inches, with feet)

Weight

14.5 kg (31.96 lbs, maximum configuration)

Bays

- 2x 3.5" disk bay (standard)
- 2x 3.5" disk bay (optional, via flex bay)

Flex Bays

2x flex bays, supports the following:

- 2x half-height optical drives
- 2x 5.25" 9.0mm optical drives
- 1x 5.25" 9.0mm optical drive + 2x 3.5"/2.5" SATA SSD/HDD
- 1x 3.5"/2.5" SATA SSD/HDD with Front Access Storage Enclosure

- 1x flex module for the following options:

Tray 1: 9.0mm optical

Tray 2: 15-in-1 USB 3.1 Gen 1 reader, 2x Thunderbolt™, or 4-digit diagnostic display

Port 1 and 2: Front USB 3.1 Gen 1 Type-C or eSATA

M.2 Slots

Up to 5x M.2 SSD:

- 2 via onboard slots
- 3 via Single M.2 to PCIe adapter

Expansion Slots

- One PCIe 3.0 x4
- One PCIe 3.0 x8
- Two PCIe 3.0 x16

Expansion Slots Offering

Slot 1: PCIe 3.0 x16, full height, full length, 75W, by CPU

Slot 2: PCIe 3.0 x8, full height, full length, 25W, open ended, by CPU

Slot 3: PCIe 3.0 x16, full height, full length, 75W, by CPU,

Slot 4: PCIe 3.0 x4, full height, half length, 25W, open ended, by PCH

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

Additional Ethernet options via PCIe adapter

WLAN + Bluetooth^[1]

- Intel Dual-Band Wireless-AC 8265, 802.11ac Dual-Band 2x2 Wi-Fi® + Bluetooth 4.2
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 2x USB 3.1 Gen 1
- 1x headphone (3.5mm)
- 1x microphone (3.5mm)

Optional Front Ports^{***}

- 1x eSATA (with flex module)
- 2x Thunderbolt (with flex module, USB-C® form, one supports video-out)
- 1x USB-C 3.1 Gen 1 (with flex module)

Rear Ports^[2]

- 2x USB 2.0
- 4x USB 3.1 Gen 1
- 2x PS/2 ports (keyboard / mouse)
- 1x Ethernet (RJ-45)
- 1x line-in (3.5mm)
- 1x line-out (3.5mm)
- 1x microphone (3.5mm)

Optional Rear Ports^{***}

- 2x USB-C 3.1 Gen 2 (via 2-port USB-C expansion card)
- 1x Thunderbolt
- 1x serial

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;

2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password

MANAGEABILITY

System Management

System Management^{[1][2]}

Intel vPro with Intel AMT 11.0

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

Diagnostic

Diagnostic

- Photo-audio transfer with Lenovo PC Diagnostics for Android™ and iOS
- ThinkStation® Diagnostics for Windows
- Front 4-digit diagnostic
- Lenovo UEFI Bootable Diagnostics
- None

SERVICE

Warranty

Base Warranty^{**[1]}

- 1-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0 (on model 30BX0095US)
- GREENGUARD®
- RoHS compliant

ISV Certifications

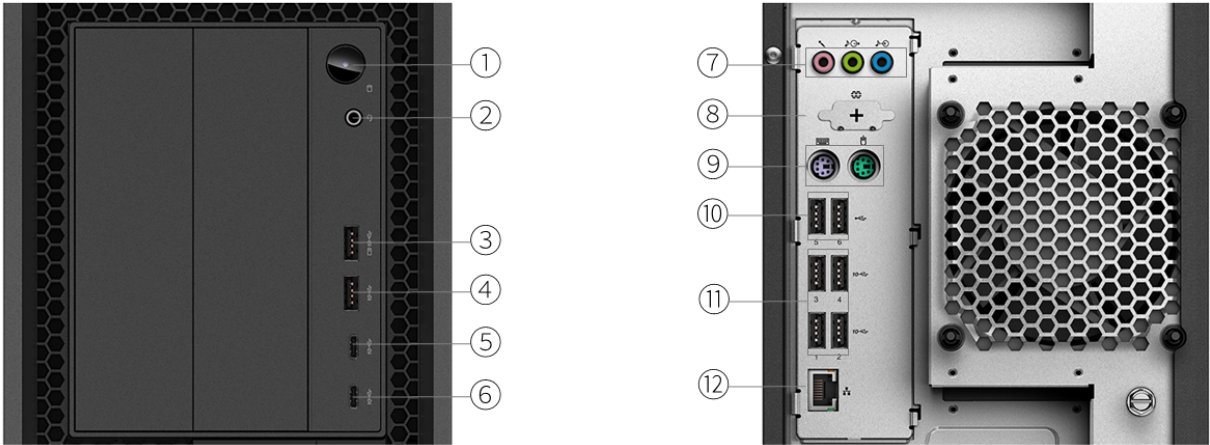
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

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OVERVIEW



1. Power button	7. 3x Audio ports (3.5mm)
2. Headphone / microphone combo jack (3.5mm)	8. Serial *
3. USB 3.2 Gen 2	9. 2x PS/2 ports (keyboard / mouse)
4. USB 3.2 Gen 2	10. 2x USB 2.0
5. USB-C 3.2 Gen 2	11. 4x USB 3.2 Gen 2
6. USB-C 3.2 Gen 2	12. Ethernet (10GbE RJ-45)

- Notes:
- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Up to one AMD Ryzen™ Threadripper PRO 5000 or 3000 Series Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen Threadripper PRO 5945WX	12	24	4.1GHz	4.5GHz	6MB L2 / 64MB L3	DDR4-3200	-
AMD Ryzen Threadripper PRO 5955WX	16	32	4.0GHz	4.5GHz	8MB L2 / 64MB L3	DDR4-3200	-
AMD Ryzen Threadripper PRO 5965WX	24	48	3.8GHz	4.5GHz	12MB L2 / 128MB L3	DDR4-3200	-
AMD Ryzen Threadripper PRO 5975WX	32	64	3.6GHz	4.5GHz	16MB L2 / 128MB L3	DDR4-3200	-
AMD Ryzen Threadripper PRO 5995WX	64	128	2.7GHz	4.5GHz	32MB L2 / 256MB L3	DDR4-3200	-
AMD Ryzen Threadripper PRO 3945WX	12	24	4.0GHz	4.3GHz	6MB L2 / 64MB L3	DDR4-3200	-
AMD Ryzen Threadripper PRO 3955WX	16	32	3.9GHz	4.3GHz	8MB L2 / 64MB L3	DDR4-3200	-
AMD Ryzen Threadripper PRO 3975WX	32	64	3.5GHz	4.2GHz	16MB L2 / 128MB L3	DDR4-3200	-
AMD Ryzen Threadripper PRO 3995WX	64	128	2.7GHz	4.2GHz	32MB L2 / 256MB L3	DDR4-3200	-

Processor Sockets

1x Socket SP3

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Ubuntu Linux LTS
- No operating system

Graphics

Discrete Graphics Support

Supports up to two NVIDIA® Quadro® RTX 8000 with NVLink, two NVIDIA RTX A6000 with NVLink, or two AMD Radeon™ PRO W6800

Discrete Graphics Offering***

Graphics	Memory	Power	Connector	SLI / NVlink
Quadro P620	2GB GDDR5	40W	4x miniDP 1.4	None
Quadro P1000	4GB GDDR5	50W	4x miniDP 1.4	None
Quadro P2200	5GB GDDR5	75W	4x DP 1.4	None
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None
Quadro RTX 4000	8GB GDDR6	160W	3x DP 1.4, 1x VirtualLink	None

Quadro RTX 5000	16GB GDDR6	265W	4x DP 1.4, 1x VirtualLink	NVLink
Quadro RTX 6000	24GB GDDR6	295W	4x DP 1.4, 1x VirtualLink	NVLink
Quadro RTX 8000	48GB GDDR6	295W	4x DP 1.4, 1x VirtualLink	NVLink
NVIDIA RTX A2000	12GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A4000	16GB GDDR6 with ECC	140W	4x DP 1.4a	None
NVIDIA RTX A4500	20GB GDDR6 with ECC	200W	4x DP 1.4	NVlink
NVIDIA RTX A5000	24GB GDDR6 with ECC	230W	4x DP 1.4a	NVLink
NVIDIA RTX A5500	24GB GDDR6 with ECC	230W	4x DP 1.4a	NVLink
NVIDIA RTX A6000	48GB GDDR6 with ECC	300W	4x DP 1.4a	NVLink
Quadro GV100	32GB HBM2	250W	4x DP 1.4	NVLink
AMD Radeon Pro WX 3200	4GB GDDR5	50W	4x miniDP 1.4	-
AMD Radeon Pro W5500	8GB GDDR6	125W	4x DP 1.4	-
AMD Radeon Pro W5700	8GB GDDR6	205W	5x miniDP 1.4, 1x USB-C®	-
AMD Radeon PRO W6400	4GB GDDR6	50W	2x DP 1.4	-
AMD Radeon PRO W6600	8GB GDDR6	130W	4x DP 1.4	-
AMD Radeon PRO W6800	32GB GDDR6 with ECC	250W	6x miniDP 1.4a	-
AMD Radeon Pro VII	16GB HBM2	250W	6x DP 1.4	-

Monitor Support

Monitor Support

Supports multiple displays via discrete graphics, the number of maximum monitors supported depends on the graphic card in use

Chipset

Chipset

AMD WRX80

Memory

Max Memory^[1]

Up to 1TB (8x 128GB DDR4-3200 RDIMMs)

Memory Type

DDR4-3200 RDIMM ECC

Memory Slots

8 DDR4 DIMM slots, 8 channels capable

Memory Protection

ECC

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to 5x 3.5" SATA HDD + 11x M.2 SSD

- 3.5" HDD up to 4TB each
- Onboard M.2 SSD up to 4TB each
- M.2 SSD by M.2 to PCIe® adapter up to 2TB

Storage Type^{***[2]}

Disk Type	Interface	RPM	Offering
3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 2TB / 4TB

M.2 PCIe SSD	PCIe NVMe®, PCIe 3.0	-	256GB / 512GB / 1TB / 2TB
M.2 PCIe SSD	PCIe NVMe, PCIe 4.0	-	256GB / 512GB / 1TB / 2TB / 4TB

Storage Controllers

Storage Controller	Type	Interface	RAID	Cache
Integrated NVMe controller	Standard	PCIe NVMe	0/1/10/5	None
Integrated SATA controller	Standard	SATA 6.0Gb/s	0/1/10/5	None

- Notes:
- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
 - 2. 4TB M.2 SSD is for onboard M.2 slots only

Removable Storage

Optical Support

Optional one 9.0mm optical drive, DVD-ROM, DVD±RW, and Blu-ray

Card Reader

- 15-in-1 card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC4050H codec

Speakers

Single speaker

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
1000W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified

DESIGN

Mechanical

Form Factor

Tower (33L)

Dimensions (WxDxH)

165 x 460 x 446 mm (6.5 x 18.1 x 17.6 inches, with feet)

Weight

24 kg (52.91 lbs, maximum configuration)

Bays

- 2x 3.5" disk bay (standard)
- 3x 3.5" disk bay (optional):
 - 2 bays come with 3rd disk or Storage Bay Upgrade Kit
 - 1 bay via flex bay

Flex Bays

1x flex bay, supports one of the following:

- Front Access Storage Enclosure
- 5.25" Slim ODD and HDD cage

M.2 Slots

Up to 11x M.2 SSD:

- 2 via onboard slots
- 8 via Quad M.2 to PCIe adapters (only supports PCIe 3.0 SSD)
- 1 via Single M.2 to PCIe adapter (only supports PCIe 3.0 SSD)

Expansion Slots

- Two PCIe 4.0 x8
- Four PCIe 4.0 x16

Expansion Slots Offering

Slot 1: PCIe 4.0 x16, full height, full length, by CPU
Slot 2: PCIe 4.0 x8, full height, full length, by CPU
Slot 3: PCIe 4.0 x16, full height, full length, by CPU
Slot 4: PCIe 4.0 x16, full height, full length, by CPU
Slot 5: PCIe 4.0 x16, full height, full length, by CPU
Slot 6: PCIe 4.0 x8, full height, full length, by IOH

CONNECTIVITY**Network****Onboard Ethernet**

10GbE Ethernet, Marvell AQtion AQN-107, 1x 10GbE RJ-45

Optional Ethernet

Additional Ethernet options via PCIe adapter

WLAN + Bluetooth^[1]

- Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.1
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]**Front Ports**

- 1x USB 3.2 Gen 2
- 1x USB 3.2 Gen 2 (Always On and fast charge)
- 2x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Rear Ports^[2]

- 2x USB 2.0
- 4x USB 3.2 Gen 2
- 2x PS/2 ports (keyboard / mouse)
- 1x Ethernet (10GbE RJ-45)
- 1x line-in (3.5mm)
- 1x line-out (3.5mm)
- 1x microphone (3.5mm)

Optional Rear Ports^{*}**

- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card, PCIe x4)
- 1x Thunderbolt™ 3
- 1x serial

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) Access Panel Lock Kit with Common Key
- (Optional) Access Panel Lock Kit with Unique Key
- Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password

MANAGEABILITY

System Management

System Management^{[1][2]}

AMD Pro Manageability

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

Diagnostic

Diagnostic

- Photo-audio transfer with Lenovo PC Diagnostics for Android™ and iOS
- ThinkStation® Diagnostics for Windows
- Front 4-digit diagnostic
- Lenovo UEFI Bootable Diagnostics

SERVICE

Warranty

Base Warranty^[1]

3-year limited onsite service with 9x5 NBD (for most models)

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0 (on model 30E00006US)
- GREENGUARD®
- RoHS compliant

ISV Certifications

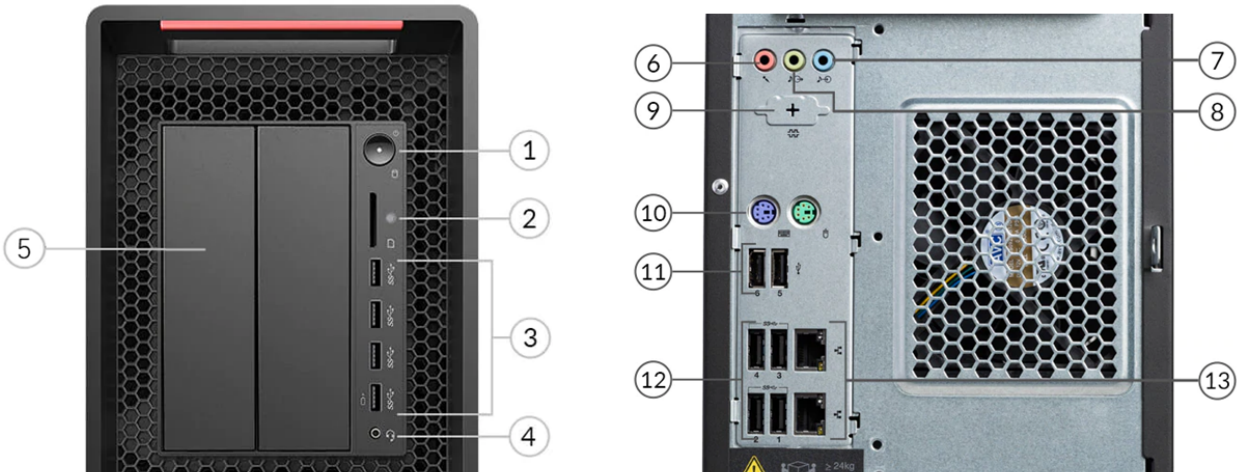
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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OVERVIEW



1. Power button	8. Line-out (3.5mm)
2. Card reader	9. Serial *
3. 4x USB 3.1 Gen 1	10. 2x PS/2 ports (keyboard / mouse)
4. Headphone / microphone combo jack (3.5mm)	11. 2x USB 2.0
5. 2x Flex bay	12. 4x USB 3.1 Gen 1
6. Microphone (3.5mm)	13. 2x Ethernet (RJ-45)
7. Line-in (3.5mm)	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Up to two 165W Gen 1 or Gen 2 Intel® Xeon® Scalable family processors, Bronze, Silver, Gold, or Platinum

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Xeon Bronze 3104	6	6	1.7GHz	-	8.25MB	DDR4-2133	-
Xeon Bronze 3106	8	8	1.7GHz	-	11MB	DDR4-2133	-
Xeon Bronze 3204	6	6	1.9GHz	1.9GHz	8.25MB	DDR4-2133	-
Xeon Bronze 3206R	8	8	1.9GHz	1.9GHz	11MB	DDR4-2133	-
Xeon Silver 4108	8	16	1.8GHz	3.0GHz	11MB	DDR4-2400	-
Xeon Silver 4109T	8	16	2.0GHz	3.0GHz	11MB	DDR4-2400	-
Xeon Silver 4110	8	16	2.1GHz	3.0GHz	11MB	DDR4-2400	-
Xeon Silver 4112	4	8	2.6GHz	3.0GHz	8.25MB	DDR4-2400	-
Xeon Silver 4114	10	20	2.2GHz	3.0GHz	13.75MB	DDR4-2400	-
Xeon Silver 4114T	10	20	2.2GHz	3.0GHz	13.75MB	DDR4-2400	-
Xeon Silver 4116	12	24	2.1GHz	3.0GHz	16.5MB	DDR4-2400	-
Xeon Silver 4208	8	16	2.1GHz	3.2GHz	11MB	DDR4-2400	-
Xeon Silver 4209T	8	16	2.2GHz	3.2GHz	11MB	DDR4-2400	-
Xeon Silver 4210	10	20	2.2GHz	3.2GHz	13.75MB	DDR4-2400	-
Xeon Silver 4210R	10	20	2.4GHz	3.2GHz	13.75MB	DDR4-2400	-
Xeon Silver 4214	12	24	2.2GHz	3.2GHz	16.5MB	DDR4-2400	-
Xeon Silver 4214R	12	24	2.4GHz	3.5GHz	16.5MB	DDR4-2400	-
Xeon Silver 4215	8	16	2.5GHz	3.5GHz	11MB	DDR4-2400	-
Xeon Silver 4215R	8	16	3.2GHz	4.0GHz	11MB	DDR4-2400	-
Xeon Silver 4216	16	32	2.1GHz	3.2GHz	22MB	DDR4-2400	-
Xeon Gold 5115	10	20	2.4GHz	3.2GHz	13.75MB	DDR4-2400	-
Xeon Gold 5118	12	24	2.3GHz	3.2GHz	16.5MB	DDR4-2400	-
Xeon Gold 5120	14	28	2.2GHz	3.2GHz	19.25MB	DDR4-2400	-
Xeon Gold 5120T	14	28	2.2GHz	3.2GHz	19.25MB	DDR4-2400	-
Xeon Gold 5122	4	8	3.6GHz	3.7GHz	16.5MB	DDR4-2666	-
Xeon Gold 5215	10	20	2.5GHz	3.4GHz	13.75MB	DDR4-2666	-
Xeon Gold 5217	8	16	3.0GHz	3.7GHz	11MB	DDR4-2666	-
Xeon Gold 5218	16	32	2.3GHz	3.9GHz	22MB	DDR4-2666	-
Xeon Gold 5220	18	36	2.2GHz	3.9GHz	24.75MB	DDR4-2666	-
Xeon Gold 5222	4	8	3.8GHz	3.9GHz	16.5MB	DDR4-2933	-
Xeon Gold 6128	6	12	3.4GHz	3.7GHz	19.25MB	DDR4-2666	-
Xeon Gold 6130	16	32	2.1GHz	3.7GHz	22MB	DDR4-2666	-
Xeon Gold 6134	8	16	3.2GHz	3.7GHz	24.75MB	DDR4-2666	-
Xeon Gold 6136	12	24	3.0GHz	3.7GHz	24.75MB	DDR4-2666	-
Xeon Gold 6138	20	40	2.0GHz	3.7GHz	27.5MB	DDR4-2666	-
Xeon Gold 6142	16	32	2.6GHz	3.7GHz	22MB	DDR4-2666	-
Xeon Gold 6146	12	24	3.2GHz	4.2GHz	24.75MB	DDR4-2666	-

Xeon Gold 6148	20	40	2.4GHz	3.7GHz	27.5MB	DDR4-2666	-
Xeon Gold 6226	12	24	2.7GHz	3.7GHz	19.25MB	DDR4-2933	-
Xeon Gold 6226R	16	32	2.9GHz	3.9GHz	22MB	DDR4-2933	-
Xeon Gold 6230	20	40	2.1GHz	3.9GHz	27.5MB	DDR4-2933	-
Xeon Gold 6234	8	16	3.3GHz	4.0GHz	24.75MB	DDR4-2933	-
Xeon Gold 6238T	22	44	1.9GHz	3.7GHz	30.25MB	DDR4-2933	-
Xeon Gold 6240R	24	48	2.4GHz	4.0GHz	35.75MB	DDR4-2933	-
Xeon Gold 6242	16	32	2.8GHz	3.9GHz	22MB	DDR4-2933	-
Xeon Gold 6244	8	16	3.6GHz	4.4GHz	24.75MB	DDR4-2933	-
Xeon Gold 6246	12	24	3.3GHz	4.2GHz	24.75MB	DDR4-2933	-
Xeon Gold 6248	20	40	2.5GHz	3.9GHz	27.5MB	DDR4-2933	-
Xeon Platinum 8160T	24	48	2.1GHz	3.7GHz	33MB	DDR4-2666	-
Xeon W-3223	8	16	3.5GHz	4.0GHz	16.5MB	DDR4-2666	-
Xeon W-3225	8	16	3.7GHz	4.3GHz	16.5MB	DDR4-2666	-

Processor Sockets

2x FCLGA3647

Operating System

Operating System**

- Windows® 11 Pro 64 for Workstations
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64 for Workstations
- Ubuntu Linux LTS
- No operating system

Graphics

Discrete Graphics Support

Supports up to two NVIDIA® Quadro® RTX 8000 with NVLink

Discrete Graphics Offering***

Graphics	Memory	Power	Connector	SLI / NVlink
Quadro P400	2GB GDDR5	30W	3x miniDP 1.4	None
Quadro P600	2GB GDDR5	45W	4x miniDP	None
Quadro P620	2GB GDDR5	40W	4x miniDP 1.4	None
Quadro P1000	4GB GDDR5	50W	4x miniDP 1.4	None
Quadro P2000	5GB GDDR5	75W	4x DP	None
Quadro P2200	5GB GDDR5	75W	4x DP 1.4	None
Quadro P4000	8GB GDDR5	120W	4x DP 1.4	None
Quadro P5000	16GB GDDR5X	180W	1x DVI-D DL, 4x DP 1.4	SLI
Quadro P6000	24GB GDDR5X	250W	1x DVI-D DL, 4x DP 1.4	SLI
NVIDIA T400	2GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None
Quadro RTX 4000	8GB GDDR6	160W	3x DP 1.4, 1x VirtualLink	None
Quadro RTX 5000	16GB GDDR6	265W	4x DP 1.4, 1x VirtualLink	NVLink
Quadro RTX 6000	24GB GDDR6	295W	4x DP 1.4, 1x VirtualLink	NVLink

Quadro RTX 8000	48GB GDDR6	295W	4x DP 1.4, 1x VirtualLink	NVLink
NVIDIA RTX A2000	6GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A2000	12GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A4000	16GB GDDR6 with ECC	140W	4x DP 1.4a	None
NVIDIA RTX A4500	20GB GDDR6 with ECC	200W	4x DP 1.4	None
NVIDIA RTX A5000	24GB GDDR6 with ECC	230W	4x DP 1.4a	NVLink
NVIDIA RTX A5500	24GB GDDR6 with ECC	230W	4x DP 1.4a	NVLink
NVIDIA RTX A6000	48GB GDDR6 with ECC	300W	4x DP 1.4a	NVLink
Quadro GP100	16GB HBM2	235W	1x DVI-D DL, 4x DP	NVLink
Quadro GV100	32GB HBM2	250W	4x DP 1.4	NVLink

Monitor Support

Monitor Support

Supports multiple displays via discrete graphics, the number of maximum monitors supported depends on the graphic card in use

Chipset

Chipset

Intel C621 chipset

Memory

Max Memory^[1]

Up to 768GB DDR4-2933

Memory Type^{**}

- DDR4-2666 RDIMM ECC
- DDR4-2933 RDIMM ECC

Memory Slots

12 DDR4 DIMM slots, 12 channels capable (6 DIMM slots with 6 channels per processor)

Memory Protection

ECC

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to 6x 3.5" SATA HDD / 10x 2.5" SATA HDD / 8x 2.5" SAS HDD / 10x 2.5" SATA SSD / 4x 2.5" PCIe® SSD + 9x M.2 PCIe SSD + 2x PCIe AIC SSD

- 3.5" HDD up to 6TB each
- 2.5" SATA HDD up to 500GB each
- 2.5" SAS HDD up to 600GB each
- 2.5" SATA SSD up to 2TB each
- M.2 SSD up to 2TB each
- 2.5" PCIe SSD up to 1.5TB each
- PCIe AIC SSD up to 480GB each

Storage Type^{***}

Disk Type	Interface	RPM	Offering
2.5" PCIe SSD	PCIe NVMe®	-	1.5TB
2.5" SAS HDD	SAS 12Gb/s	10K	300GB / 600GB
2.5" SATA SSD	SATA 6Gb/s	-	256GB / 512GB / 1TB / 2TB
2.5" SATA HDD	SATA 6Gb/s	7.2K	500GB / 500GB FIPS

3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 2TB / 4TB / 6TB
M.2 PCIe SSD	PCIe NVMe	-	256GB / 512GB / 1TB / 2TB
PCIe AIC SSD	PCIe NVMe	-	480GB

Storage Controllers

Storage Controller	Type	Interface	RAID	Cache
Onboard Intel RSTe SATA RAID	Standard	SATA 6.0Gb/s	0/1/10/5	None
9440-8i PCIe	Optional	SAS 12.0Gb/s, SATA 6.0Gb/s	0/1/10/5	None
9460-16i PCIe	Optional	SAS 12.0Gb/s, SATA 6.0Gb/s	0/1/10/5/6	4GB DDR4, SuperCap
NVMe Basic	Optional	PCIe NVMe	0/1/10	None
NVMe Premium	Optional	PCIe NVMe	0/1/10/5	None
NVMe for Intel SSD	Optional	PCIe NVMe	0/1/10/5	None

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical Support

Up to two HH or 9.0mm optical drive, DVD-ROM, DVD±RW, and Blu-ray

Card Reader

- SD card reader
- 15-in-1 card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC662 codec

Speakers

Single speaker

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
690W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified
900W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified
1000W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified

DESIGN

Mechanical

Form Factor

Tower (36L)

Dimensions (WxDxH)

175 x 485 x 446 mm (6.89 x 19.1 x 17.6 inches, with feet)

Weight

25.7 kg (56.7 lbs, maximum configuration)

Bays^[1]

- 2x 3.5" disk bay (standard)

- 4x 3.5" disk bay (optional):
 - 2 bays come with 3rd disk or Storage Bay Upgrade Kit
 - 2 bays via flex bay

Flex Bays

2x flex bays, supports the following:

- 2x half-height optical drives
- 2x 5.25" 9.0mm optical drives
- 1x 5.25" 9.0mm optical drive + 2x 3.5"/2.5" SATA SSD/HDD
- 1x 3.5"/2.5" SATA SSD/HDD with Front Access Storage Enclosure
- 1x flex module for the following options:

Tray 1: 9.0mm optical

Tray 2: 15-in-1 USB 3.1 Gen 1 reader, 2x Thunderbolt™, or 4-digit diagnostic display

Port 1 and 2: Front USB 3.1 Gen 1 Type-C or eSATA

M.2 Slots

Up to 9x M.2 SSD:

- 2 via onboard slots
- 4 via Quad M.2 to PCIe adapter
- 3 via Single M.2 to PCIe adapter

Expansion Slots

- One PCI
- One PCIe 3.0 x4
- One PCIe 3.0 x8
- Three PCIe 3.0 x16 (2nd CPU needed)

Expansion Slots Offering

Slot 1: PCIe 3.0 x16, full height, full length, 75W, by CPU2

Slot 2: PCIe 3.0 x16, full height, full length, 75W, double-width, by CPU1

Slot 3: PCIe 3.0 x8, full height, full length, 25W, open ended, by CPU1

Slot 4: PCIe 3.0 x16, full height, full length, 75W, double-width, by CPU1

Slot 5: PCI, full height, full length, 25W

Slot 6: PCIe 3.0 x4, full height, half length, 25W, open ended, by PCH

Notes:

1. 4x 3.5" bay can also support up to 8x 2.5" SSD / HDD with 2 disks per bay. Additional 9440-8i or 9460-16i PCIe adapter and other parts are needed.

CONNECTIVITY

Network

Onboard Ethernet

Two gigabit Ethernet, Intel Ethernet Connection I219-LM and I210-AT, 2x RJ-45, supports Wake-on-LAN

Optional Ethernet

Additional Ethernet options via PCIe adapter

WLAN + Bluetooth^[1]

- Intel Dual-Band Wireless-AC 8265, 802.11ac Dual-Band 2x2 Wi-Fi® + Bluetooth 4.2
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.1 Gen 1 (Always On and fast charge)
- 3x USB 3.1 Gen 1
- 1x headphone / microphone combo jack (3.5mm)

Optional Front Ports***

- 1x eSATA (with flex module)
- 2x Thunderbolt (with flex module, USB-C® form, one supports video-out)
- 1x USB-C 3.1 Gen 1 (with flex module)

Rear Ports^[2]

- 2x USB 2.0
- 4x USB 3.1 Gen 1
- 2x PS/2 ports (keyboard / mouse)
- 2x Ethernet (RJ-45)
- 1x line-in (3.5mm)
- 1x line-out (3.5mm)
- 1x microphone (3.5mm)

Optional Rear Ports^{***}

- 2x USB-C 3.1 Gen 2 (via 2-port USB-C expansion card)
- 1x Thunderbolt
- 1x serial

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) Access Panel Lock Kit with Common Key
- (Optional) Access Panel Lock Kit with Unique Key
- Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password

MANAGEABILITY

System Management

System Management^{[1][2]}

Intel vPro with Intel AMT 11.0

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.
2. Intel vPro offers a superset of DASH's defined capabilities.

Diagnostic

Diagnostic

- Photo-audio transfer with Lenovo PC Diagnostics for Android™ and iOS
- ThinkStation® Diagnostics for Windows
- Front 4-digit diagnostic
- Lenovo UEFI Bootable Diagnostics
- None

SERVICE

Warranty

Base Warranty**^[1]

- 1-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0 (on model 30BA00EQUS)
- GREENGUARD®
- RoHS compliant

ISV Certifications

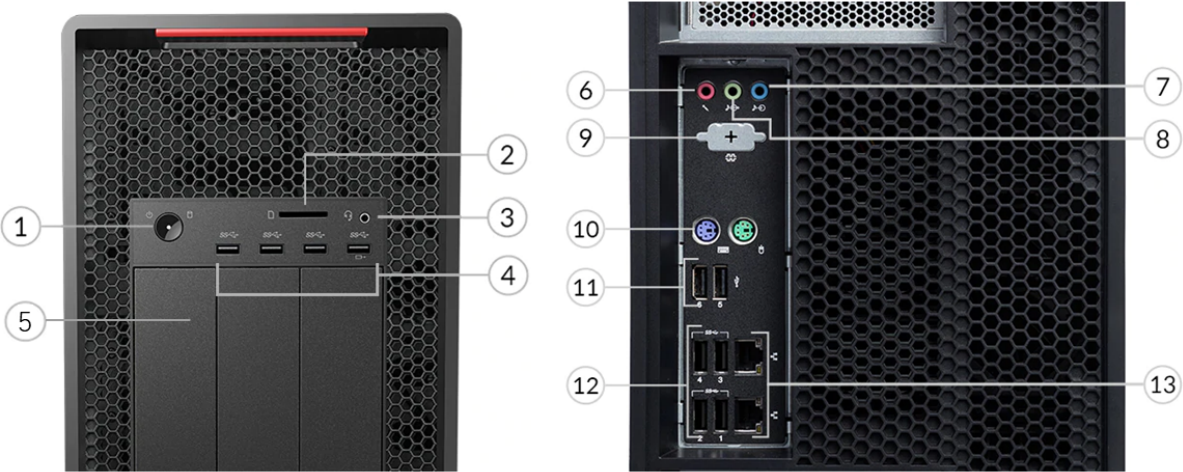
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

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OVERVIEW



1. Power button	8. Audio line-out (3.5mm)
2. Card reader	9. Serial *
3. Headphone / microphone combo jack (3.5mm)	10. 2x PS/2 ports (keyboard / mouse)
4. 4x USB 3.2 Gen 1	11. 2x USB 2.0
5. 3x Flex bay	12. 4x USB 3.2 Gen 1
6. Microphone (3.5mm)	13. 2x Ethernet (RJ-45)
7. Audio line-in (3.5mm)	

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Up to two 205W Gen 1 or Gen 2 Intel® Xeon® Scalable family processors, Bronze, Silver, Gold, or Platinum

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Xeon Bronze 3104	6	6	1.7GHz	-	8.25MB	DDR4-2133	-
Xeon Bronze 3106	8	8	1.7GHz	-	11MB	DDR4-2133	-
Xeon Bronze 3204	6	6	1.9GHz	1.9GHz	8.25MB	DDR4-2133	-
Xeon Bronze 3206R	8	8	1.9GHz	1.9GHz	11MB	DDR4-2133	-
Xeon Silver 4108	8	16	1.8GHz	3.0GHz	11MB	DDR4-2400	-
Xeon Silver 4109T	8	16	2.0GHz	3.0GHz	11MB	DDR4-2400	-
Xeon Silver 4110	8	16	2.1GHz	3.0GHz	11MB	DDR4-2400	-
Xeon Silver 4112	4	8	2.6GHz	3.0GHz	8.25MB	DDR4-2400	-
Xeon Silver 4114	10	20	2.2GHz	3.0GHz	13.75MB	DDR4-2400	-
Xeon Silver 4114T	10	20	2.2GHz	3.0GHz	13.75MB	DDR4-2400	-
Xeon Silver 4116	12	24	2.1GHz	3.0GHz	16.5MB	DDR4-2400	-
Xeon Silver 4208	8	16	2.1GHz	3.2GHz	11MB	DDR4-2400	-
Xeon Silver 4209T	8	16	2.2GHz	3.2GHz	11MB	DDR4-2400	-
Xeon Silver 4210	10	20	2.2GHz	3.2GHz	13.75MB	DDR4-2400	-
Xeon Silver 4210R	10	20	2.4GHz	3.2GHz	13.75MB	DDR4-2400	-
Xeon Silver 4214	12	24	2.2GHz	3.2GHz	16.5MB	DDR4-2400	-
Xeon Silver 4214R	12	24	2.4GHz	3.5GHz	16.5MB	DDR4-2400	-
Xeon Silver 4215	8	16	2.5GHz	3.5GHz	11MB	DDR4-2400	-
Xeon Silver 4215R	8	16	3.2GHz	4.0GHz	11MB	DDR4-2400	-
Xeon Silver 4216	16	32	2.1GHz	3.2GHz	22MB	DDR4-2400	-
Xeon Gold 5115	10	20	2.4GHz	3.2GHz	13.75MB	DDR4-2400	-
Xeon Gold 5118	12	24	2.3GHz	3.2GHz	16.5MB	DDR4-2400	-
Xeon Gold 5120	14	28	2.2GHz	3.2GHz	19.25MB	DDR4-2400	-
Xeon Gold 5120T	14	28	2.2GHz	3.2GHz	19.25MB	DDR4-2400	-
Xeon Gold 5122	4	8	3.6GHz	3.7GHz	16.5MB	DDR4-2666	-
Xeon Gold 5215	10	20	2.5GHz	3.4GHz	13.75MB	DDR4-2666	-
Xeon Gold 5217	8	16	3.0GHz	3.7GHz	11MB	DDR4-2666	-
Xeon Gold 5218	16	32	2.3GHz	3.9GHz	22MB	DDR4-2666	-
Xeon Gold 5220	18	36	2.2GHz	3.9GHz	24.75MB	DDR4-2666	-
Xeon Gold 5222	4	8	3.8GHz	3.9GHz	16.5MB	DDR4-2933	-
Xeon Gold 6128	6	12	3.4GHz	3.7GHz	19.25MB	DDR4-2666	-
Xeon Gold 6130	16	32	2.1GHz	3.7GHz	22MB	DDR4-2666	-
Xeon Gold 6134	8	16	3.2GHz	3.7GHz	24.75MB	DDR4-2666	-
Xeon Gold 6136	12	24	3.0GHz	3.7GHz	24.75MB	DDR4-2666	-
Xeon Gold 6138	20	40	2.0GHz	3.7GHz	27.5MB	DDR4-2666	-
Xeon Gold 6142	16	32	2.6GHz	3.7GHz	22MB	DDR4-2666	-
Xeon Gold 6146	12	24	3.2GHz	4.2GHz	24.75MB	DDR4-2666	-

Xeon Gold 6148	20	40	2.4GHz	3.7GHz	27.5MB	DDR4-2666	-
Xeon Gold 6154	18	36	3.0GHz	3.7GHz	24.75MB	DDR4-2666	-
Xeon Gold 6226	12	24	2.7GHz	3.7GHz	19.25MB	DDR4-2933	-
Xeon Gold 6226R	16	32	2.9GHz	3.9GHz	22MB	DDR4-2933	-
Xeon Gold 6230	20	40	2.1GHz	3.9GHz	27.5MB	DDR4-2933	-
Xeon Gold 6234	8	16	3.3GHz	4.0GHz	24.75MB	DDR4-2933	-
Xeon Gold 6238T	22	44	1.9GHz	3.7GHz	30.25MB	DDR4-2933	-
Xeon Gold 6240R	24	48	2.4GHz	4.0GHz	35.75MB	DDR4-2933	-
Xeon Gold 6242	16	32	2.8GHz	3.9GHz	22MB	DDR4-2933	-
Xeon Gold 6244	8	16	3.6GHz	4.4GHz	24.75MB	DDR4-2933	-
Xeon Gold 6246	12	24	3.3GHz	4.2GHz	24.75MB	DDR4-2933	-
Xeon Gold 6248	20	40	2.5GHz	3.9GHz	27.5MB	DDR4-2933	-
Xeon Gold 6254	18	36	3.1GHz	4.0GHz	24.75MB	DDR4-2933	-
Xeon Gold 6258R	28	56	2.7GHz	4.0GHz	38.5MB	DDR4-2933	-
Xeon Platinum 8160T	24	48	2.1GHz	3.7GHz	33MB	DDR4-2666	-
Xeon Platinum 8180	28	56	2.5GHz	3.8GHz	38.5MB	DDR4-2666	-
Xeon Platinum 8280	28	56	2.7GHz	4.0GHz	38.5MB	DDR4-2933	-
Xeon W-3223	8	16	3.5GHz	4.0GHz	16.5MB	DDR4-2666	-
Xeon W-3225	8	16	3.7GHz	4.3GHz	16.5MB	DDR4-2666	-
Xeon W-3235	12	24	3.3GHz	4.4GHz	19.25MB	DDR4-2933	-
Xeon W-3245	16	32	3.2GHz	4.4GHz	22MB	DDR4-2933	-
Xeon W-3265	24	48	2.7GHz	4.4GHz	33MB	DDR4-2933	-
Xeon W-3275	28	56	2.5GHz	4.4GHz	38.5MB	DDR4-2933	-

Processor Sockets

2x FCLGA3647

Operating System

Operating System**

- Windows® 11 Pro 64 for Workstations
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64 for Workstations
- Ubuntu Linux LTS
- No operating system

Graphics

Discrete Graphics Support

Supports up to two NVIDIA® Quadro® RTX 8000 with NVLink

Discrete Graphics Offering***

Graphics	Memory	Power	Connector	SLI / NVlink
Quadro P400	2GB GDDR5	30W	3x miniDP 1.4	None
Quadro P600	2GB GDDR5	45W	4x miniDP	None
Quadro P620	2GB GDDR5	40W	4x miniDP 1.4	None
Quadro P1000	4GB GDDR5	50W	4x miniDP 1.4	None
Quadro P2000	5GB GDDR5	75W	4x DP	None
Quadro P2200	5GB GDDR5	75W	4x DP 1.4	None
Quadro P4000	8GB GDDR5	120W	4x DP 1.4	None
Quadro P5000	16GB GDDR5X	180W	1x DVI-D DL, 4x DP 1.4	SLI

Quadro P6000	24GB GDDR5X	250W	1x DVI-D DL, 4x DP 1.4	SLI
NVIDIA T400	2GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None
Quadro RTX 4000	8GB GDDR6	160W	3x DP 1.4, 1x VirtualLink	None
Quadro RTX 5000	16GB GDDR6	265W	4x DP 1.4, 1x VirtualLink	NVLink
Quadro RTX 6000	24GB GDDR6	295W	4x DP 1.4, 1x VirtualLink	NVLink
Quadro RTX 8000	48GB GDDR6	295W	4x DP 1.4, 1x VirtualLink	NVLink
NVIDIA RTX A2000	6GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A2000	12GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA RTX A4000	16GB GDDR6 with ECC	140W	4x DP 1.4a	None
NVIDIA RTX A4500	20GB GDDR6 with ECC	200W	4x DP 1.4	None
NVIDIA RTX A5000	24GB GDDR6 with ECC	230W	4x DP 1.4a	NVLink
NVIDIA RTX A5500	24GB GDDR6 with ECC	230W	4x DP 1.4a	NVLink
NVIDIA RTX A6000	48GB GDDR6 with ECC	300W	4x DP 1.4a	NVLink
Quadro GP100	16GB HBM2	235W	1x DVI-D DL, 4x DP	NVLink
Quadro GV100	32GB HBM2	250W	4x DP 1.4	NVLink

Monitor Support

Monitor Support

Supports multiple displays via discrete graphics, the number of maximum monitors supported depends on the graphic card in use

Chipset

Chipset

Intel C621 chipset

Memory

Max Memory^[1]

Up to 1TB DDR4-2933

Memory Type^{**}

- DDR4-2666 LRDIMM ECC
- DDR4-2666 RDIMM ECC
- DDR4-2933 RDIMM ECC

Memory Slots

16 DDR4 DIMM slots, 12 channels capable (8 DIMM slots with 6 channels per processor)

Memory Protection

ECC

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to 6x 3.5" SATA HDD / 10x 2.5" SATA HDD / 8x 2.5" SAS HDD / 10x 2.5" SATA SSD / 4x 2.5" PCIe® SSD + 9x M.2 PCIe SSD + 2x PCIe AIC SSD

- 3.5" HDD up to 6TB each
- 2.5" SATA HDD up to 500GB each

- 2.5" SAS HDD up to 600GB each
- 2.5" SATA SSD up to 2TB each
- M.2 SSD up to 2TB each
- 2.5" PCIe SSD up to 1.5TB each
- PCIe AIC SSD up to 480GB each

Storage Type***

Disk Type	Interface	RPM	Offering
2.5" PCIe SSD	PCIe NVMe®	-	1.5TB
2.5" SAS HDD	SAS 12Gb/s	10K	300GB / 600GB
2.5" SATA SSD	SATA 6Gb/s	-	256GB / 512GB / 1TB / 2TB
2.5" SATA HDD	SATA 6Gb/s	7.2K	500GB / 500GB FIPS
3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 2TB / 4TB / 6TB
M.2 PCIe SSD	PCIe NVMe	-	256GB / 512GB / 1TB / 2TB
PCIe AIC SSD	PCIe NVMe	-	480GB

Storage Controllers

Storage Controller	Type	Interface	RAID	Cache
Onboard Intel RSTe SATA RAID	Standard	SATA 6.0Gb/s	0/1/10/5	None
9440-8i PCIe	Optional	SAS 12.0Gb/s, SATA 6.0Gb/s	0/1/10/5	None
9460-16i PCIe	Optional	SAS 12.0Gb/s, SATA 6.0Gb/s	0/1/10/5/6	4GB DDR4, SuperCap
NVMe Basic	Optional	PCIe NVMe	0/1/10	None
NVMe Premium	Optional	PCIe NVMe	0/1/10/5	None
NVMe for Intel SSD	Optional	PCIe NVMe	0/1/10/5	None

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

Removable Storage

Optical Support

Up to three HH or two 9.0mm optical drives, DVD-ROM, DVD±RW, or Blu-ray

Card Reader

- SD card reader
- 15-in-1 card reader
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC662 codec

Speakers

Single speaker

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
1400W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified. Countries with input voltage under 115V, output power limited to 1125 watts

DESIGN

Mechanical

Form Factor

Tower (55L)

Dimensions (WxDxH)

200 x 620 x 446 mm (7.87 x 24.4 x 17.56 inches, with feet)

Weight

37 kg (81.6 lbs, maximum configuration)

Bays^[1]

- 2x 3.5" disk bay (standard)
- 4x 3.5" disk bay (optional):
 - 2 bays come with 3rd disk or Storage Bay Upgrade Kit
 - 2 bays via flex bay

Flex Bays

3x flex bay, supports the following:

- 3x half-height optical drives
- 2x 5.25" 9.0mm optical drives
- 1x 5.25" 9.0mm optical drive + 1x 3.5"/2.5" SATA SSD/HDD
- 1x 3.5"/2.5" SATA SSD/HDD with Front Access Storage Enclosure
- 1x flex module for the following options:

Tray 1: 9.0mm optical

Tray 2: 15-in-1 USB 3.2 Gen 1 reader or 2x Thunderbolt™

Port 1 and 2: Front USB 3.2 Gen 1 Type-C or eSATA

M.2 Slots

Up to 9x M.2 SSD:

- 2 via onboard slots
- 4 via Quad M.2 to PCIe adapter
- 3 via Single M.2 to PCIe adapter

Expansion Slots

- Three PCIe 3.0 x4
- Five PCIe 3.0 x16 (2nd CPU needed)

Expansion Slots Offering

Slot 1 (CPU1) PCIe 3.0 x16, full height, full length, 75W, double-width, by CPU1

Slot 2 (CPU1) PCIe 3.0 x4, full height, full length, 25W, open ended, by CPU1

Slot 3 (CPU1) PCIe 3.0 x16, full height, full length, 75W, double-width, by CPU1

Slot 4 (CPU1) PCIe 3.0 x4, full height, full length, 25W, open ended, by CPU1

Slot 5 (PCH) PCIe 3.0 x4, full height, half length, 25W, open ended, by PCH

Slot 6 (CPU2) PCIe 3.0 x16, full height, half length, 75W, by CPU2

Slot 7 (CPU2) PCIe 3.0 x16, full height, full length, 75W, double-width, by CPU2

Slot 8 (CPU2) PCIe 3.0 x16, full height, full length, 75W, by CPU2

Notes:

1. 4x 3.5" bay can also support up to 8x 2.5" SSD / HDD with 2 disks per bay. Additional 9440-8i or 9460-16i PCIe adapter and other parts are needed.

CONNECTIVITY

Network

Onboard Ethernet

Two gigabit Ethernet, Intel Ethernet Connection I219-LM and I210-AT, 2x RJ-45, supports Wake-on-LAN

Optional Ethernet

Additional Ethernet options via PCIe adapter

WLAN + Bluetooth^[1]

- Intel Dual-Band Wireless-AC 8265, 802.11ac Dual-Band 2x2 Wi-Fi® + Bluetooth 4.2
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

Ports^[1]

Front Ports

- 1x USB 3.1 Gen 1 (Always On and fast charge)
- 3x USB 3.1 Gen 1
- 1x headphone / microphone combo jack (3.5mm)

Optional Front Ports^{***}

- 1x eSATA (with flex module)
- 2x Thunderbolt (with flex module, USB-C® form, one supports video-out)
- 1x USB-C 3.1 Gen 1 (with flex module)

Rear Ports^[2]

- 2x USB 2.0
- 4x USB 3.1 Gen 1
- 2x PS/2 ports (keyboard / mouse)
- 2x Ethernet (RJ-45)
- 1x line-in (3.5mm)
- 1x line-out (3.5mm)
- 1x microphone (3.5mm)

Optional Rear Ports^{***}

- 2x USB-C 3.1 Gen 2 (via 2-port USB-C expansion card)
- 1x Thunderbolt
- 1x serial

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

- (Optional) Access Panel Lock Kit with Common Key
- (Optional) Access Panel Lock Kit with Unique Key
- Kensington® Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password

MANAGEABILITY

System Management

System Management^{[1][2]}

Intel vPro with Intel AMT 11.0

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

2. Intel vPro offers a superset of DASH's defined capabilities.

Diagnostic

Diagnostic

- Photo-audio transfer with Lenovo PC Diagnostics for Android™ and iOS
- ThinkStation® Diagnostics for Windows
- Front 4-digit diagnostic
- Lenovo UEFI Bootable Diagnostics

SERVICE

Warranty

Base Warranty^[1]

- 1-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0 (on model 30BC003WUS)
- GREENGUARD®
- RoHS compliant

ISV Certifications

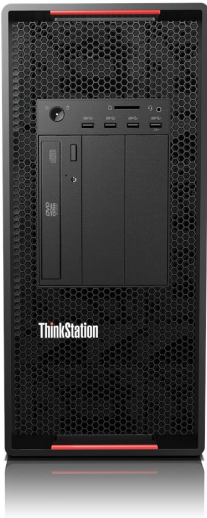
ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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ThinkStation P920 Rack Platform Specifications

Product Specifications Reference (PSREF)

Form factor	2U rack							Diagnostic	Light Path Diagnostics	
Dimensions	Height: 87 mm (3.4 in). Width: 445 mm (17.5 in). Depth: 720 mm (28.3 in)							Base warranty	3-year limited onsite service with 9x5/NBD	
Weight	Maximum configuration: 70.54 lb (32 kg)							Warranty upgrades	5WS7A72784Foundation Service - 3Yr Next Business Day Response	
Processor Sockets	2x FCLGA3647								5WS7A72785Foundation Service - 4Yr Next Business Day Response	
Processor Support	Up to two Gen 2 Intel Xeon Scalable family processors, Bronze, Silver, or Gold								5WS7A72786Foundation Service - 5Yr Next Business Day Response	
Processor Offering	Processor	# of Cores	# of Threads	Base Frequency	Cache	TDP	Memory Types		5PS7A72787 Essential Service - 3Yr 24x7 4Hr Response + YourDrive YourData	
	Xeon Gold 6252	24	48	2.1GHz	35.75MB	150W	DDR4-2933		5PS7A72788 Essential Service - 4Yr 24x7 4Hr Response + YourDrive YourData	
	Xeon Gold 6234	8	16	3.3GHz	25MB	130W	DDR4-2933	5PS7A72789 Essential Service - 5Yr 24x7 4Hr Response + YourDrive YourData		
	Xeon Gold 6230	20	40	2.1GHz	28MB	125W	DDR4-2933	HD Audio		
	Xeon Gold 5218	16	32	2.3GHz	22MB	125W	DDR4-2666	None		
	Xeon Gold 5215	10	20	2.5GHz	13.75MB	85W	DDR4-2666	Front ports		
	Xeon Silver 4215	8	16	2.5GHz	11MB	85W	DDR4-2400	One XClarity Controller USB connector, one USB 3.0, one optional VGA		
	Xeon Silver 4214	12	24	2.2GHz	17MB	85W	DDR4-2400	Rear ports		
	Xeon Silver 4210	10	20	2.2GHz	14MB	85W	DDR4-2400	One VGA, two USB 3.0, one XClarity Controller network connector		
	Xeon Silver 4208	8	16	2.1GHz	11MB	85W	DDR4-2400	Operating system	Microsoft Windows Server 2016 and 2019. Red Hat Enterprise Linux (RHEL) 7 and 8. SUSE Linux Enterprise Server (SLES) 12 and 15. VMware vSphere (ESXi) 6.5 and 6.7.	
Xeon Bronze 3204	6	6	1.9GHz	8.25MB	85W	DDR4-2133	Supports ASHRAE A4 with limitations.			
Chipset	Intel C624 Platform Controller Hub							Environmental specification	Temperature - operating	
Memory Sockets	24 DIMM sockets with 12 channels. 12 DIMM sockets with 6 channels per processor								A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)	
Memory Types	DDR4-2933 RDIMM, 8GB/16GB/32GB available								Temperature - non operating (no package)	
Memory Capacity	768GB with 24x 32GB DDR4-2933 RDIMM								-10°C to 60°C (14°F to 140°F)	
Memory protection	ECC, memory mirroring, and memory sparing								Temperature - non operating (with package)	
Expansion slots	Slot 1 (riser card 1)	Full height, half length, double-wide					-40°C to 70°C (-40°F to 158°F)			
	Slot 2	Not present, for double-wide card in slot 1					Altitude - operating			
	Slot 3 (riser card 1)	PCIe 3.0 x16 (x8 lanes). Full height, half length					(Unpressurized): 0-10000ft (0-3048m)			
	Slot 4 (onboard)	PCIe 3.0 x8, low profile					Humidity - operating, non-condensing			
	Slot 5 (riser card 2)	PCIe 3.0 x16, full height, half length, requires 2nd CPU					A4: 8%~90%. A3:8%~85%. A2:8%~80%			
	Slot 6 (riser card 2)	PCIe 3.0 x16, full height, half length, requires 2nd CPU					Humidity - storage (with package), non-condensing			
	Slot 7 (onboard)	PCIe 3.0 x8 (dedicated to an internal storage controller)					8%~90%			
Integrated Graphics	Integrated Matrox G200 in XClarity Controller							Models should meet the following requirements to support A3 and A4: • NVMe drives not installed • PCIe flash adapter not installed • Graphic processing unit (GPU) not installed • Must have redundant PSU • Processors with TDP more than or equal to 150-watt not installed		
Discrete Graphics Offering	Graphics	Memory		Power	Connector	SLI / NVlink	Max Qty	Environmental Certifications	Energy Star Server 2.1 certified. More environmental information please see: www.lenovo.com/social_responsibility/us/en/environment/	
	Quadro P620	2GB GDDR5		40W	4xminiDP		3		ISV certifications	Certifications from NVIDIA Quadro ISV Certified
	Quadro RTX 4000	8GB GDDR6		160W	3xDP, 1xVirtualLink		3	4XB7A62801 Intel S4510 3.5" 240G SSD OPT		
	Quadro RTX 5000	16GB GDDR6		265W	4xDP, 1xVirtualLink		2	4XB7A62802 Intel S4510 3.5" 480G SSD OPT		
	T4	16GB GDDR6		70W	-		5	4XB7A62803 Intel S4510 3.5" 960G SSD OPT		
	V100	16GB/32GB HBM2		250W	-		2	4XB7A62804 Intel S4510 3.5" 1.92T SSD OPT		
Storage Controller	Storage Controller	Type	Interface	RAID		Cache		Options	4XB7A62805 Intel S4510 3.5" 3.84T SSD OPT	
	530-8i	Optional	12Gbps SAS	0/1/10/5/50		-			4XB7A62806 4TB7.2K 6GSATA 3.5G4HS HDD OPT	
Storage Support	Disk Type	Interface	RPM	Offering		Max Qty			4XB7A62807 6TB7.2K 6GSATA512e 3.5G4HS OPT	
	3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB/4TB/6TB/8TB/10TB/12TB/14TB		8			4XB7A62808 8TB7.2K 6GSATA512e 3.5G4HS OPT	
	3.5" SATA SSD	SATA 6Gb/s	7.2K	240GB/480GB/960GB/1.92TB/3.84TB		8			4XB7A62809 10T7.2K 6GSATA512e 3.5G4HS OPT	
	M.2 SATA SSD	SATA 6Gb/s		480GB		2			4XB7A62810 3.5" 12TB 7.2K SATA 512e HDD	
									4XB7A62811 14T 3.5" 7.2 SATA HDD OPT	
Storage Bays	Bay Type	Maximum Drives Qty					4ZC7A62797 8GB 1RX8 PC4-2933R 8Gb 1.2V			
	M.2	2x M.2 SATA SSD non-hot swap					4ZC7A62798 16GB 1RX4 PC4-2933R 8Gb 1.2V			
	Disk bay	8x 3.5" SATA/SAS hot-swap disk bays					4ZC7A62799 16GB 2RX8 PC4-2933R 8Gb 1.2V			
Power supply	Up to two redundant hot-swap 1100W or 1600W 80 PLUS Platinum qualified AC power supplies. 100V - 240V							4ZC7A62800 32GB 2RX4 PC4-2933R 8Gb 1.2V		
Media reader	None									
Network interfaces	One dedicated management port. One LOM slot for customized LOM with up to four RJ-45 10GbE ports. Wake-on-LAN and NC-SI are available on Port 0 of LOM									
WLAN + Bluetooth	None									
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 compliant, upgrade to 2.0 via UEFI setting. Optional lockable security bezel									
Systems management	XClarity Controller Standard. Energy Manager. XClarity Administrator. Lenovo Capacity Planner. Provisioning Manager. Essentials									

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If Lenovo determines your product problem is covered by the product warranty and cannot be resolved over the telephone, a technician will be dispatched to arrive onsite, typically the next day.

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Included software: may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.

Battery life: Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

Visit <http://psref.lenovo.com/> for the latest version of Product Specifications Reference.

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Lenovo 1009 Think Place Morrisville, NC 27560 U.S.A.

PSREF

Product Specifications Reference

ThinkVision

ThinkVision

Version 598
August 3, 2022

Lenovo[™]

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Summary of Changes

This section describes the technical changes made in this edition.

This edition might also include minor corrections and editorial changes which are not identified.

August 3, 2022 - Version 598

Additions in this update

► New product(s)

ThinkCentre TIO Flex 22i

ThinkVision T22i-30

ThinkVision T23i-30

ThinkVision T27p-30

ThinkVision P24q-30

ThinkVision P24h-30

► Spec updated

None

Withdrawals in this update

► Withdrawn product(s)

None

ThinkVision E20-1b Monitor

DISPLAY

Panel Size
19.5-inch

Screen Dimensions
452.0 mm x 263.0 mm

Panel Type
TN

Active Area
432.0 mm x 239.8 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
1600 x 900

Pixel Pitch
0.270 mm x 0.266 mm

Dot/Pixel Per Inch (DPI/PPI)
94

Viewing Angle (H x V @ CR 10:1)
170° / 160°

Response Time
2ms (Extreme Mode), 5ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (Typical)
250 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut (Coverage Ratio)
72% NTSC (CIE 1931)

Color Support (Typical)
16.7 Million

Color Depth
8-bit (6+FRC)

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x VGA

POWER

Power Consumption (Typ. / Max.)
12W / 13W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-Off Mode
< 0.3W

Power Supply
Internal

Voltage Required
AC 100 to 240 V (47-63 Hz)

MECHANICAL

Tilt Angle (Front / Back)
-5° / 22°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny Support
Yes, by Tiny VESA Mount II
(PN: 4XFON03161)*

ThinkCentre M Series Nano Support
Yes, by Nano VESA Mount
(PN: 4XFOV81630)*

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
15.8 mm

Bezel Width (Top / Bottom)
17.4 / 25.1 mm

DIMENSION

Size Packed
(D x H x W) (mm/inch)
531.0 x 139.0 x 341.0 mm
20.91 x 5.47 x 13.43 inches

Size Unpacked w/ Stand (Lowest Position)
(D x H x W) (mm/inch)
204.8 x 352.6 x 464.8 mm
8.06 x 13.88 x 18.30 inches

Size Unpacked w/ Stand (Highest Position)
(D x H x W) (mm/inch)
204.8 x 352.6 x 464.8 mm
8.06 x 13.88 x 18.30 inches

Size Unpacked w/o Stand (Head Only)
(D x H x W) (mm/inch)
48.3 x 283.5 x 464.8 mm
1.90 x 11.16 x 18.30 inch

Weight Packed (kg / lb)
3.7 kg / 8.2 lbs

Weight Unpacked (kg / lb)
2.5 kg / 5.5 lbs

Weight (Monitor Head Only) (kg / lb)
2.2 kg / 4.9 lbs

WHAT'S IN THE BOX

Monitor with Stand
Yes

Power Cable (Cable Length)
1 x Power Cable (1.8m)

HDMI Cable (Cable Length)
1 x HDMI Cable (1.8m)

Quick Setup Guide
Yes

Warranty Booklet
Yes

CERTIFICATION

TCO
9.0

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10, Windows 11



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Specifications may vary depending upon region.

ThinkVision E20-20

DISPLAY

Panel Size

19.5-inch

Screen Dimensions

442.20 mm × 286.60 mm

Active Area

418.61 mm × 262.35 mm

Panel Type

In-Plane Switching

Backlight

WLED

Aspect Ratio

16:10

Resolution

1440 × 900

Pixel Pitch

0.2907 × 0.2915 mm

Dot/Pixel Per Inch (DPI/PPI)

87

Viewing Angle (H x V @ CR 10:1)

178° / 178°

Response Time

4ms (Extreme Mode)

6ms (Normal Mode)

Refresh Rate

60 Hz

Brightness (typical)

250 cd/m2

Contrast Ratio (typical)

1000:1

Dynamic Contrast Ratio (typical)

3M:1

Color Gamut

72% NTSC (CIE 1931)

Color Support (typical)

16.7 Million

Anti-Glare

Yes

CONNECTIVITY

Video Signal

1 x HDMI 1.4

1 x VGA

POWER

Power Consumption (typical/max)

12W / 14W

Power Consumption Sleep/O Mode

< 0.5W

Power Consumption Switch-o Mode

< 0.5W

Energystar Power Consumption (Pon/E_{TEC})

11.3W / 35.96kWh

Power Supply

Internal

Voltage Required

AC 100 to 240V (50—60 Hz)

MECHANICAL

Tilt Angle (front/back)

-5° / 22°

VESA Mount Capability

Yes (100 x 100 mm)

Kensington Lock Slot

Yes

Bezel Color

Raven Black

Bezel Width (side)

17.9 mm

Bezel Width (top/bottom)

18.0 / 26.0 mm

DIMENSIONS

Size Packed (D x H x W, mm/inch)

124.0 x 388.0 x 513.0 mm /

4.88 x 15.28 x 20.20 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)

188.3 x 372.0 x 456.0 mm /

7.41 x 14.56 x 17.95 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)

188.3 x 372.0 x 456.0 mm /

7.41 x 14.56 x 17.95 inches

Size Unpacked w/o stand (Head Only) (D x H x W)(mm/inch)

44.5 x 308.0 x 456.0 mm /

1.75 x 12.13 x 17.95 inches

Weight Packed (kg/lbs.)

4.10 kg / 9.04 lbs.

Weight Unpacked (kg/lbs.)

2.95 kg / 6.50 lbs.

Weight (Monitor Head Only) (kg/lbs.)

2.61 kg / 5.75 lbs.

WHAT'S IN THE BOX

Monitor with stand

1 x Power cable (1.8 m)

1 x HDMI cable (1.8 m)

Quick setup guide

CERTIFICATION

ENERGY STAR Certification

Yes

CCC

Yes

TCO

8.0

RoHS (EU 2002/95/EC)

Yes

EPEAT

Silver

Windows Certification

Windows 7, Windows 10

China Energy Efficiency Standard

Tier 2

TÜV Rheinland Low Blue Light

Yes



Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

ThinkVision E20-30 Monitor

DISPLAY

Panel Size
19.5-inch

Screen Dimensions (W x H, mm)
439.73 mm x 245.64 mm

Panel Type
TN

Active Area
432.96 mm x 238.05 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
1600 x 900

Pixel Pitch
0.271 mm x 0.264 mm

Dot/Pixel Per Inch (DPI/PPI)
94

Viewing Angle (H x V @ CR 10:1)
170° / 160°

Response Time
2ms (On), 5ms (Off)

Refresh Rate
60 Hz

Brightness (Typical)
250 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut
72% NTSC (CIE 1931)

Color Support (Typical)
16.7 Million

Color Depth
8-bit

Anti-Glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x VGA

POWER

Power Consumption (Typ. / Max.)
12W / 15W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-Off Mode
< 0.3W

ENERGY STAR Power Consumption (Pon / E_{rec})
9.84W / 31.82kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (Front / Back)
-5° / 22°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny Support
Yes, by Tiny VESA Mount II (PN: 4XFON03161)*

ThinkCentre M Series Nano Support
Yes, by Nano VESA Mount (PN: 4XFOV81630)*

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
15.3 mm

Bezel Width (Top / Bottom)
18.2 / 26.0 mm

DIMENSION

Size Packed (D x H x W) (mm/inch)
125.0 x 350.0 x 560.0 mm
4.92 x 13.78 x 22.05 inch

Size Unpacked w/ Stand (Lowest Position) (D x H x W) (mm/inch)
180.4 x 352.6 x 464.8 mm
7.10 x 13.88 x 18.30 inch

Size Unpacked w/ Stand (Highest Position) (D x H x W) (mm/inch)
180.4 x 352.6 x 464.8 mm
7.10 x 13.88 x 18.30 inch

Size Unpacked w/o Stand (Head Only) (D x H x W) (mm/inch)
48.3 x 283.5 x 464.8 mm
1.90 x 11.16 x 18.30 inch

Weight Packed (kg / lb)
3.7 kg / 8.2 lbs

Weight Unpacked (kg / lb)
2.5 kg / 5.5 lbs

Weight (Monitor Head Only) (kg / lb)
2.2 kg / 4.8 lbs

WHAT'S IN THE BOX

Monitor with Stand
Yes

Power Cable (Cable Length)
1 x Power Cable (1.8m)

HDMI Cable (Cable Length)
1 x HDMI Cable (1.8m)

Quick Setup Guide
Yes

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
9.0

TCO Edge
2.0

EPEAT
Silver

Volatile Organic Compound Certification
Yes

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10, Windows 11

China Energy Efficiency Standard
Tier 2

TÜV Rheinland Low Blue Light
Yes

TÜV Rheinland Flicker Free
Yes



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Specifications may vary depending upon region.

ThinkVision E22-20

DISPLAY

Panel Size
21.5-inch

Screen Dimensions
476.06 mm x 267.79 mm

Panel Type
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.2480 x 0.2480 mm

Dot/Pixel Per Inch (DPI/PPI)
102

Viewing angle (H x V @ CR 10:1)
178° / 178°

Response Time
14ms

Refresh Rate
60 Hz

Brightness (typical)
250 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
72% NTSC (CIE 1931)

Color Support (typical)
16.7 Million

Color Depth
8-bit

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2
1 x VGA

MULTI-MEDIA

Integrated Speakers
Yes (2 x 1.5W)

POWER

Power Consumption (typ./max)
18W / 24W

**Power Consumption
Sleep/Off Mode**
< 0.5W

**Power Consumption
Switch Off-Mode**
0.5W

**ENERGY STAR Power Consumption
(P_{on}/E_{tec})**
11.24W / 35.64kWh

Power Supply
Internal

Voltage Required
AC 90 to 264 V (47-63 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 22°

Lift (max range)
155 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre Tiny Support*
Yes, by Sandwich Mounting Kit
(PN: 4XHON04098)

Kensington Lock Slot
Yes

Bezel Color
Raven Black

Bezel Width (side)
15 mm

Bezel Width (top/bottom)
17.25 / 21.15 mm

DIMENSION

**Size Packed
(D x H x W, mm/inch)**
131.0 x 405.0 x 610.0 mm
5.16 x 15.94 x 24.02 inches

**Size Unpacked w/ Stand
(D x H x W, mm/inch)
(lowest position)**
178.6 x 301.6 x 508.0 mm
7.03 x 11.87 x 20.00 inches

**Size Unpacked w/ Stand
(D x H x W, mm/inch)
(highest position)**
178.6 x 443.4 x 508.0 mm
7.03 x 17.46 x 20.00 inches

**Size Unpacked w/o Stand
(head only) (D x H x W,
mm/inch)**
43.4 x 307.9 x 508.0 mm
1.71 x 12.12 x 20.00 inches
Weight Packed (kg/lbs.)
5.40 kg / 11.90 lbs.

Weight Unpacked (kg/lbs.)
3.90 kg / 8.60 lbs.

**Weight (Monitor Head Only)
(kg/lbs.)**
2.20 kg / 4.85 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x HDMI cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Silver

RoHS (2011/65/EU)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



* Optional support.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision E22-28

DISPLAY

Panel Size

21.5-inch

Screen Dimensions

483.64 mm x 278.67 mm

Panel Type

In-Plane Switching

Active Area

476.06 mm x 267.79 mm

Backlight

WLED

Aspect Ratio

16:9

Resolution

1920 x 1080

Pixel Pitch

0.2480 mm x 0.2480 mm

Dot/Pixel Per Inch (DPI/PPI)

102

Viewing angle (H x V @ CR 10:1)

178° / 178°

Response Time

4ms (Extreme Mode)

6ms (Normal Mode)

Refresh Rate

60Hz

Brightness (typical)

250 cd/m²

Contrast Ratio (typical)

1000:1

Dynamic Contrast Ratio (typical)

3M:1

Color Gamut

72% NTSC (CIE 1931)

Color Support (typical)

16.7 Million

Anti-glare

Yes

CONNECTIVITY

Video Signal

1 x HDMI 1.4

1 x DP 1.2

1 x VGA

MULTI-MEDIA

Integrated Speakers

Yes (2 x 1.5W)

POWER

Power Consumption (typ./max)

13W / 17W

Power Consumption

Sleep/Off Mode

< 0.5W

Power Consumption

Switch-off Mode

< 0.5W

ENERGY STAR Power Consumption

(Pon/E_{Tec})

13W / 41kWh

Power Supply

Internal

Voltage Required

AC 100 to 240 V (50-60Hz)

MECHANICAL

Tilt Angle (front/back)

-5° / 22°

Swivel Angle (left/right)

360°

Lift Range

155 mm

Pivot

-90° / 90°

VESA Mount Capability

Yes (100 x 100 mm)

ThinkCentre Tiny Support*

Yes, by Sandwich Mounting Kit

(PN: 4XHON04O98)

Kensington Lock Slot

Yes

Bezel Color

Raven Black

Bezel Width (side)

15.0 mm

Bezel Width (top/bottom)

17.6 / 20.8 mm

DIMENSION

Size Packed

(D x H x W, mm/inch)

131.0 x 405.0 x 610.0 mm

5.16 x 15.94 x 24.02 inches

Size Unpacked w/stand

(D x H x W, mm/inch)

(lowest position)

178.6 x 301.6 x 508.0 mm

7.03 x 11.87 x 20.00 inches

Size Unpacked w/stand

(D x H x W, mm/inch)

(highest position)

178.6 x 443.4 x 508.0 mm

7.03 x 17.46 x 20.00 inches

Size Unpacked w/o stand

(head only) (D x H x W, mm/inch)

43.4 x 307.9 x 508.0 mm

1.71 x 12.12 x 20.00 inches

Weight Packed (kg/lb)

5.40 kg / 11.90 lbs.

Weight Unpacked (kg/lb)

3.90 kg / 8.60 lbs.

Weight (monitor head only)

(kg/lb)

2.20 kg / 4.85 lbs.

WHAT'S IN THE BOX

Monitor with stand

1 x Power cable (1.8 m)

1 x HDMI cable (1.8 m)

Quick setup guide

CERTIFICATION

ENERGY STAR Certification

Yes

CCC

Yes

TCO

8.0

TCO Edge

2.0

EPEAT

Silver

RoHS (2011/65/EU)

Yes

Windows Certification

Windows 7, Windows 10

China Energy Efficiency Standard

Tier 1

TÜV Rheinland Eye Comfort

Yes

TÜV Rheinland Flicker Free

Yes



* Optional support.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

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Specifications may vary depending upon region.

Lenovo

DISPLAY

Tamanho do Painel

21,5 polegadas

Dimensão da Tela (L x A)

476,06 x 267,79 mm

Tipo de Painel

3-side NearEdgeless, VA

Luz de Fundo

WLED

Proporção da Tela

16:9

Resolução

1920 x 1080 mm

Distância entre pixels (A x V)

0.2480 x 0.2480 mm

Ponto/Pixel por polegada (DPI/PPI)

102

Ângulo de Visão (H x V)

178° / 178°

Tempo de Resposta (cinza a cinza)

4 ms (modo extremo)

6 ms (modo normal)

Taxa de Contraste (típica)

3000:1

Taxa de Contraste Dinâmico (típica)

3M:1

Cor Gamut NTSC (CIE 1931)

72% NTSC

Suporte de Cores (típico)

16.7M

Taxa de Atualização

60 Hz

Brilho (típico)

250 cd/m²

CONECTIVIDADE

Sinais de Entrada de Vídeo

1 x VGA

1 x HDMI 1.4

Saída de Áudio

Sim (3.5 mm)

MULTI-MEDIA

Suporte Opcional à Barra de Som

Sim

CARACTERÍSTICAS ESPECIAIS

Antirreflexo

Sim

Suporte ao Cliente Tiny

Sim (pelo suporte VESA PN: 4XFON03161)

Tecnologia Sync

FreeSync™

CONSUMO DE ENERGIA

Consumo de energia (Tipo/Máx.)

18W / 22W

MECÂNICO

Ângulo de Inclinação (frente/trás)

-5° / 22°

Montagem VESA

Sim (100 x 100 mm)

Trava Kensington™

Sim

Gerenciamento de Cabos

Sim

Cor da Moldura

Raven Black

Largura da Moldura (lateral)

2.0 mm

Largura do Painel (superior/inferior)

2.0 / 21.2 mm

O QUE VEM NA CAIXA?

Monitor com Suporte

1 x Cabo HDMI

1 x Cabo de Energia

Guia de Configuração Rápida

CERTIFICAÇÕES

Classificação ENERGY STAR®

7.1

CCC

Sim

TCO

TCO 7.0/ TCO Nível 2.0

EPEAT™

Prata

ULE

Ouro

RoHS

Sim

Certificação Windows

Windows 7, Windows 10

Padrão de Eficiência Energética da China

Nível 2

Temperatura Operacional de Acordo com o Ambiente

0°C to 40°C

Baixa Luz Azul

Sim

DIMENSÕES THINKVISION®

S22e-18 (LTPS)

Ângulo de inclinação (frente/trás):

-5° ~ +22°

Tamanho embalado (D x A x L):

655 x 184 x 358 mm

Ajuste de altura:

Sim, até 130 mm

Tamanho desembalado com suporte posição mais baixa (D x A x L):

244,6 x 380,3 x 489,3 mm

Tamanho desembalado com suporte posição mais alta (D x A x L):

244,6 x 510,3 x 489,3 mm

Peso embalado:

6,35 KG

Peso desembalado:

4,68 KG

DIMENSÕES THINKVISION®

S22e-19 (TILT)

Ângulo de Inclinação (frente/trás):

-5° ~ +22°

Tamanho embalado (D x A x L):

555 x 134 x 348 mm

Ajuste de altura:

Não

Tamanho desembalado com suporte (D x A x L):

200 x 373.8 x 489.3 mm

Tamanho desembalado com suporte posição mais alta (D x A x L):

244,6 x 510,3 x 489,3 mm

Peso embalado:

4,07 KG

Peso desembalado:

2,75 KG



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As especificações podem variar dependendo da região.

Lenovo™

ThinkVision S22e-19

DISPLAY

Panel Size

21.5-inch

Screen Dimensions (W x H) (mm)

476.06 mm x 267.79 mm

Panel Type

3-side NearEdgeless, VA

Backlight

WLED

Aspect Ratio

16:9

Resolution

1920 x 1080 mm

Pixel Pitch (H x V) (mm)

0.2480 x 0.2480 mm

Dot/Pixel Per Inch (DPI/PPI)

102

Viewing Angle (H x V)

178° / 178°

Response Time (gray to gray)

4 ms (extreme mode)
6 ms (normal mode)

Contrast Ratio (typical)

3000:1

Dynamic Contrast Ratio (typical)

3M:1

Color Gamut NTSC (CIE 1931)

72% NTSC

Color Support (typical)

16.7M

Refresh rate

60 Hz

Brightness (typical)

250 cd/m²

CONNECTIVITY

Video Input Signals

1 x VGA
1 x HDMI 1.4

Audio Out

Yes (3.5 mm)

MULTI-MEDIA

Optional Soundbar Support

Yes

SPECIAL FEATURES

Anti-Glare

Yes

Thin Client Support (Tiny)

Yes (by VESA mount PN:4XFON03161)

Sync Technology

FreeSync™

POWER

Power Consumption (Typ./Max)

18W / 22W

MECHANICAL

Tilt Angle (front / back)

-5° / 22°

VESA Mount

Yes (100 x 100 mm)

Kensington Lock Slot

Yes

Cable Management

Yes

Bezel Color

Raven Black

Bezel Width (side)

2.0 mm

Bezel Width (top / bottom)

2.0 mm / 21.2 mm

DIMENSIONS

Size Packed (D x H x W) (mm/inch)

120 x 350 x 582 mm / 4.7 x 13.7 x 22.9 inch

Size Unpacked w/stand (D x H x W) (mm/inch) (Lowest Position)

200.0 x 373.8 x 489.3 mm / 7.87 x 14.71 x 19.26 inch

Size Unpacked w/stand (D x H x W) (mm/inch) (Highest Position)

200.0 x 373.8 x 489.3 mm / 7.87 x 14.71 x 19.26 inch

Size Unpacked w/o stand (D x H x W) (mm/inch) (Head Only)

41.5 x 296.8 x 489.3 mm / 1.63 x 11.68 x 19.26 inch

Weight Packed (kg/lbs.)

4.07kg / 8.97 lbs.

Weight Unpacked (kg/lbs.)

2.75kg / 6.06 lbs.

Weight (Monitor Head Only) (kg/lbs.)

2.46kg / 5.42 lbs.

WHAT'S IN THE BOX

Monitor with stand

1 x HDMI Cable

1 x Power Cable

Quick setup guide

CERTIFICATIONS

ENERGY STAR Rating

8.0

CCC

Yes

TCO

TCO 7.0/TCO Edge 2.0

EPEAT

Silver

ULE

Gold

RoHS

Yes

Windows Certification

Windows 7, Windows 10

China Energy Efficiency Standard

Tier 2

Ambient Operating Temperature

0°C to 40°C

Low Blue Light

Yes



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Specifications may vary depending upon region.

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ThinkVision S22e-20

DISPLAY

Panel Size

21.5-inch

Screen Dimensions

484.50 mm x 284.40 mm

Panel Type

3-side NearEdgeless, VA

Active Area

476.06 mm x 267.79 mm

Backlight

WLED

Aspect Ratio

16:9

Resolution

1920 x 1080

Pixel Pitch

0.2480 x 0.2480 mm

Dot/Pixel Per Inch (DPI/PPI)

102

Viewing Angle (H x V @ CR 10:1)

178° / 178°

Response Time

4ms (Extreme Mode)

6ms (Normal Mode)

Refresh Rate

75 Hz¹

Brightness (Typical)

250 cd/m²

Contrast Ratio (Typical)

3000:1

Dynamic Contrast Ratio (Typical)

3M:1

Color Gamut

72% NTSC (CIE 1931)

Color Support (Typical)

16.7 Million

Anti-glare

Yes

CONNECTIVITY

Video Signal

1 x HDMI 1.4

1 x VGA

Audio Signal

1 x Audio Out (3.5 mm)

SPECIAL FEATURE

Sync Technology

AMD FreeSync™²

MULTI-MEDIA

Optional Soundbar Support

Yes (PN number: OA36190)

POWER

Power Consumption (Typical/Max)

15W / 19W

Power Consumption Sleep/Off Mode

< 0.3W

Power Consumption Switch-off Mode

< 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})

15W / 43 kWh

Power Supply

Internal

Voltage Required

AC 100 to 240 V (47—63 Hz)

MECHANICAL

Tilt Angle (Front/Back)

-5° / 22°

VESA Mount Capability

Yes (100 x 100 mm)

ThinkCentre M Series Tiny Support

Yes, by Tiny VESA Mount II

(PN: 4XFON03161)

ThinkCentre M Series Nano Support

Yes, by Nano VESA Mount

(PN: 4XFOV81630)

Kensington Lock Slot

Yes

Cable Management

Yes

Bezel Color

Raven Black

Bezel Width (side)

2.0 mm

Bezel Width (top/bottom)

2.0/21.2 mm

DIMENSIONS

Size Packed

(D x H x W, mm/inch)

140.0 x 352.0 x 587.0 mm

5.51 x 13.86 x 23.11 inches

Size Unpacked w/ Stand

(D x H x W, mm/inch)

(Lowest position)

173.1 x 405.1 x 489.3 mm

6.81 x 15.95 x 19.26 inches

Size Unpacked w/ Stand

(D x H x W, mm/inch)

(Highest position)

173.1 x 405.1 x 489.3 mm

6.81 x 15.95 x 19.26 inches

Size Unpacked w/o Stand (Head Only)

(D x H x W) (mm/inch)

45.5 x 296.8 x 489.3 mm

1.79 x 11.69 x 19.26 inches

Weight Packed (kg/lbs.)

4.68 kg / 10.31 lbs.

Weight Unpacked (kg/lbs.)

3.14 kg / 6.92 lbs.

Weight (Monitor Head Only) (kg/lbs.)

2.39 kg / 5.27 lbs

WHAT'S IN THE BOX

Monitor with stand

1 x Power cable (1.8 m)

1 x HDMI 1.4 cable (1.8 m)

Quick setup guide

CERTIFICATION

ENERGY STAR Certification

Yes

TCO

8.0

TCO Edge

2.0

RoHS (EU 2002/95/EC)

Yes

EPEAT

Gold

China Energy Efficiency Standard

Tier 2

TÜV Rheinland Low Blue Light

Yes

TÜV Rheinland Flicker Free

Yes



¹ HDMI only. ² AMD FreeSync™ is enabled for AMD Radeon™ Series graphics cards.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

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Specifications may vary depending upon region.

ThinkVision T2054p Monitor

SPECIFICATIONS

DISPLAY		MECHANICAL	
Panel Size	19.5"	Tilt Angle (Front / Back)	-5° - 22°
Panel Type	IPS	Swivel Angle (Left / Right)	-45° - 45°
Backlit	WLED	Lift (mm)	110
Viewable Area (Diagonal)	19.5"	Pivot	No
Screen Dimensions (W x H) (mm)	262.35 x 418.61	VESA Mount (mm)	100 x 100
Resolution	1440 x 900	Kensington Lock Slot	Yes
Aspect Ratio	16:10	Cable Management	Yes
Viewing Angle (H/V at CR 10:1)	178° / 178°	Ambient Light Sensor	No
Maximum Brightness (Typical)	250 cd/m ²	Control Buttons	Yes
Contrast Ratio (Typical)	1000:1	Bezel Color	Raven Black
Pixel Pitch (W x H) (mm)	0.0969 x 0.2915	Bezel Width (Side) (mm / inches)	17 / 0.67"
Dot/Pixel Per Inch (DP / PPI)	87.3	Bezel Width (Top / Bottom) (mm / inches)	17 / 0.67"
Color Gamut (CIE 1931)	72%		
Number of Colors	16.7 M		
Response Time	7 ms		
Anti-Glare	Yes		
SIGNAL INPUT		SIGNAL INTERFACE / PERFORMANCE	
Video Input Signals	VGA, HDMI, DisplayPort	Horizontal Frequency	30 kHz - 81 kHz
Video Cables Supplied	VGA	Vertical Frequency	50 Hz - 75 Hz
Video Cable Length	1.8 m	Native Resolution	1440 x 900
USB Hub	No	Maximum Pixel Clock Speed / Bandwidth	VGA : 150 MHz HDMI : 150 MHz DisplayPort : 150 MHz
USB Cable Supplied	No	Default Color Temperature	7200K
		Preset Display Modes	22
		User-defined Display Modes	16
		OSD Buttons	5
		OSD Languages	8
POWER CONSUMPTION		COMPLIANCE	
Power Consumption		EPEAT	Silver
Typical	14.5 W	ENERGY STAR Rating	8.0
Max. without USB Hub	21 W	ULE	Gold
Max. with USB Hub	N/A	TCO	6.0
Sleep-Mode	0.3 W	TCO Edge	2.0
Off-Mode	0.3 W	TUV	Yes
Heat Dissipation		GREENGUARD	No
Typical	49.45 Btu/h	RoHS (EU 2002/95/EC)	Yes
Max.	71.61 Btu/h	Windows Certification	Windows 7, Windows 8, Windows 8.1, Windows 10
Power Supply	Internal	China Energy Efficiency Standard	Tier 1
Power Voltage	90 - 264 VAC, 1.5 A		
Voltage Dynamic Frequency	47 - 63 Hz		
DIMENSIONS (W X D X H)		ENVIRONMENTAL	
Size Packed		Temperature	
(mm)	509 x 176 x 368	Operating	0 °C - 45 °C
(inches)	20.04" x 6.93" x 14.49"	Non-operating	-20 °C - 60 °C (non-condensing)
Size Unpacked with Stand		Humidity	
(mm)	454.2 x 242.6 x 345.9 - 455.9	Operating	10% - 80%
(inches)	17.88" x 9.55" x 13.62" - 17.95"	Non-operating	5% - 95% (non-condensing)
Size Unpacked without Stand (Head Only)		Altitude	
(mm)	454.2 x 53 x 297.9	Operating	8,000 ft
(inches)	17.88" x 2.09" x 11.73"	Non-operating	40,000 ft
Distance from Table to Panel	(mm / inches)	Arsenic-free Glass	Yes
Lowest Pixel at Bottom of Screen	65.8 / 2.59"	PVC Free	Yes
Highest Pixel at Top of Screen	328.2 / 12.92"	Mercury Free	Yes
Stand Base Footprint Area (mm / inches)	Diameter 240 / 9.45"	PCC % of Plastic Resins	85%
Weight		Low Halogen	No
Packed	Starting at 10.8 lbs (4.9 kg)	WARRANTY AND AVAILABILITY	
Unpacked	Starting at 8.15 lbs (3.7 kg)	Warranty	3 Years
Monitor Head	Starting at 4.85 lbs (2.2 kg)	Geography Availability	World Wide
		ThinkVision Logo	Yes
		Global Model	Yes



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ThinkVision T2224d MONITOR

SPECIFICATIONS

DISPLAY		MECHANICAL	
Panel Size	21.5"	Tilt Angle (Front / Back)	-5° / 22°
Panel Type	IPS	Swivel Angle (Left / Right)	No
Backlight	WLED	Lift Range	No
Screen Dimensions (W x H) (mm)	476.064 (H) x 267.786 (V)	Pivot	No
Resolution	1920 x 1080	VESA Mount (mm)	100 x 100
Aspect Ratio	16:9 (Wide)	Kensington Lock Slot	Yes
Viewing Angle (H/V at CR 10:1)	178°/178°	Cable Management	Yes
Maximum Brightness (Typical)	250 cd/m²	Ambient Light Sensor	No
Contrast Ratio (Typical)	1000:1	Control Buttons	Yes
Dynamic Contrast Ratio	3000000:1	Bezel Color	Raven Black
Pixel Pitch (mm)	0.248	Bezel Width	
Dot/Pixel Per Inch (DP/PPI)	102	Bottom (mm / inches)	25.6 / 1.01"
Color Gamut (CIE 1931) NTSC	72%	Top (mm / inches)	17.6 / 0.69"
Number of Colors	16.7 Million	Sides (mm / inches)	17.6 / 0.69"
Response Time	4 ms (extreme mode)		
Anti-Glare	Yes		
SIGNAL INPUT		POWER CONSUMPTION	
Video Input Signals	VGA + DisplayPort	Typical	20 W
Video Cables Supplied	VGA + DisplayPort	Maximum	25 W
Video Cable Length	1.8 m	Sleep-Mode	<0.5 W
USB Hub	No	Switch-Off Mode	<0.5 W
USB Cable Supplied	No	Power Supply	Internal
		Power Voltage	90 VAC - 264 VAC
		Voltage Dynamic Frequency	47 Hz - 63 Hz
SIGNAL INTERFACE / PERFORMANCE		DIMENSIONS (W x D x H)	
Horizontal Frequency	30 kHz ~ 83 kHz	Size Unpacked with Stand	
Vertical Frequency	50 Hz ~ 75 Hz	(mm)	512.9 x 204.9 x 381.4
Native Resolution	1920 x 1080	(inches)	20.19" x 8.07" x 15.01"
Maximum Pixel Clock Speed Bandwidth		Size Unpacked without Stand (Head Only)	
VGA	205 MHz	(mm)	512.9 x 51 x 312.6
DisplayPort	165 MHz	(inches)	20.19" x 2.01" x 12.31"
Default Color Temperature	7200K	Distance from Table to Panel (mm / inches)	
Plug 'n' Play	Yes	Lowest Pixel at Bottom of Screen	94.4 / 3.72"
Preset Display Modes	22	Highest Pixel at Top of Screen	363.9 / 14.33"
User-defined Display Modes	22	Stand Base Footprint Area (mm / inches)	180 x 180 / 7.09" x 7.09"
OSD Buttons	5	Weight	
OSD Languages	8	Packed	Starting at 9.19 lbs (4.17 kg)
Lockable Controls	No	Unpacked	Starting at 6.48 lbs (2.94 kg)
		Monitor Head Only	Starting at 5.93 lbs (2.69 kg)
ENVIRONMENTAL		COMPLIANCE	
Temperature		EPEAT	Silver
Operating	0°C - 45°C	ENERGY STAR Rating	8.0
Non-operating	-20°C - 60°C	TCO	Display 7.0 / Edge 2.0
Humidity		RoHS (EU 2002/95/EC)	Yes
Operating	10% - 80%	Windows Certification	Windows 7, Windows 10
Non-operating	5% - 95%	Image Quality Capability	ISO 9241-307
Altitude		China Energy Efficiency Standard	Tier 1
Operating	5000 m		
Non-operating	0 ft - 40,000 ft		
Arsenic-free Glass	Yes		
PVC-free	Yes		
Mercury-free	Yes		
PCC % of Plastic Resins	>85%		
Low Halogen	No		
		WARRANTY AND AVAILABILITY	
		Warranty	3 Years
		Geography Availability	World Wide
		Global Model	Yes

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ThinkVision T22i-20

DISPLAY

Panel Size
21.5-inch

Screen Dimensions
476.06 mm x 267.79 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.2479 x 0.2479 mm

Dot/Pixel Per Inch (DPI/PPI)
102

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (extreme mode)

Refresh Rate
60 Hz

Brightness (typical)
250 cd/m²

Brightness (peak)
250 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
72% NTSC (CIE 1931)

Color Support (typical)
16.7 Million

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2
1 x VGA

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB 3.2 Gen1

USB Downstream
4 x USB 3.2 Gen1 (1 x BC 1.2)

MULTI-MEDIA

Optional Soundbar Support
Yes (PN: OA36190)

POWER

Power Consumption (typ./max.)
12W / 43W

Power Consumption Sleep/O Mode
<0.3W

Power Consumption Switch O -Mode
<0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
10.4W / 32.97kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max range)
150 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Tiny Bracket Support
Yes (sold separately)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
1.8 mm

Bezel Width (top/bottom)
1.8 / 22 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
390.0 x 187.0 x 577.0 mm
15.35 x 7.36 x 22.72 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
205.0 x 396.0 x 489.3 mm
8.07 x 15.59 x 19.26 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
205.0 x 546.0 x 489.3 mm
8.07 x 21.50 x 19.26 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
48.5 x 297.4 x 489.3 mm
1.91 x 11.71 x 19.26 inches

Min. Distance from Table to Panel (lowest pixel at bottom of screen, mm)
121.6 mm

Max. Distance from Table to Panel (highest pixel at bottom of screen, mm)
339.4 mm

Weight Packed (kg/lbs.)
7.20 kg / 15.87 lbs.

Weight Unpacked (kg/lbs.)
5.47 kg / 12.06 lbs.

Weight (monitor head only) (kg/lbs.)
3.01 kg / 6.66 lbs.

Full Container Load (40' STD / 20' STD)
1188 / 550 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m)
1 x USB Type-A to B cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Silver

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Yes

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision T22i-30 Monitor

Display

Panel Size

21.5-inch

Screen Dimensions

484.4 mm x 271.9 mm

Panel Type

3-side NearEdgeless In-Plane Switching

Active Area

476.1 mm x 267.8 mm

Backlight

WLED

Aspect Ratio

16:9

Resolution

1920 x 1080

Pixel Pitch

0.274 mm x 0.274 mm

Dot/Pixel Per Inch (DPI/PPI)

102

Viewing Angle (H x V @ CR 10:1)

178° / 178°

Response Time

4ms (Extreme Mode), 6ms (Normal Mode),
14ms (Off Mode)

Refresh Rate

60Hz

Brightness (Typical)

250 cd/m²

Contrast Ratio (Typical)

1000:1

Dynamic Contrast Ratio (Typical)

3M:1

Color Gamut (Coverage Ratio)

99.0% sRGB

Color Gamut (Color Area Ratio)

108.0% sRGB

Color Support (Typical)

16.7 Million

Color Depth

8-bit (6+FRC)

Anti-Glare

Yes

Connectivity

Video Signal

1 x HDMI 1.4

1 x DP 1.2

1 x VGA

Audio Signal

1 x Audio Out (3.5 mm)

USB Hub

Yes

USB Upstream

1 x USB 3.0 Type-B

USB Downstream

4 x USB 3.0 Type-A

Special Features

Software

Yes

Natural Low Blue Light

Yes

Power

Power Consumption (Typ. / Max.)

15W / 48W

Power Consumption Sleep/Off Mode

< 0.5W (Sleep), < 0.3W (Off DC)

ENERGY STAR Power Consumption (Pon/E_{TEC})

11.0W / 34.41kWh

Power Supply

Internal

Voltage Required

AC 100 to 240 V (50-60Hz)

Mechanical

Tilt Angle (Front / Back)

-5° / 23.5°

Swivel Angle (Left / Right)

+45° / -45°

Lift (Max. Range)

155 mm

Pivot

-90° / 90°

VESA Mount Capability

Yes (100 x 100 mm)

Kensington Lock Slot

Yes

Cable Management

Yes

Bezel Color

Raven Black

Bezel Width (Side)

2.0 mm

Bezel Width (Top / Bottom)

2.0 / 17.3 mm

Dimension

Size Packed

(D x H x W) (mm/inch)

144.0 x 414.0 x 563.0 mm

5.67 x 16.30 x 22.17 inches

Size Unpacked w/ Stand (Lowest Position)

(D x H x W) (mm/inch)

194.7 x 332.4 x 498.3 mm

7.67 x 13.09 x 19.62 inches

Size Unpacked w/ Stand (Highest Position)

(D x H x W) (mm/inch)

194.7 x 487.4 x 498.3 mm

7.67 x 19.19 x 19.62 inches

Size Unpacked w/o Stand (Head Only)

(D x H x W) (mm/inch)

46.4 x 294.7 x 489.3 mm

1.83 x 11.60 x 19.26 inches

Weight Packed (kg / lbs.)

6.8 kg / 15.0 lbs.

Weight Unpacked (kg / lbs.)

4.9 kg / 10.8 lbs.

Weight (Monitor Head Only) (kg / lbs.)

3.0 kg / 6.6 lbs.

What's in the Box

Monitor with Stand

Yes

Power Cable (Cable Length)

1 x Power Cable (1.8 m)

HDMI Cable (Cable Length)

1 x HDMI Cable (1.8 m)

USB Cable (Cable Length)

1 x USB 3.0 Type-A to Type-B Cable (1.8 m)

Quick Setup Guide

Yes

Warranty Booklet

Yes

Certification

ENERGY STAR Certification

Yes

CCC

Yes

TCO

9.0

TCO Edge

2.0

EPEAT

Gold

Volatile Organic Compound Certification

Yes

RoHS (2011/65/EU)

Yes

Windows Certification

Windows 10, Windows 11

China Energy Efficiency Standard

Tier 1

TÜV Rheinland Eye Comfort

Yes

TÜV Rheinland Low Blue Light

Yes

TÜV Rheinland Flicker Free

Yes

TÜV Low Blue Light (Hardware Solution)

Yes

Eyesafe Display Certification

Yes



Smarter
technology
for all

Lenovo

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Specifications may vary depending upon region.

ThinkVision T22v-20

DISPLAY

Panel Size
21.5-inch

Screen Dimensions
476.06 mm x 267.79 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.2479 x 0.2479 mm

Dot/Pixel Per Inch (DPI/PPI)
102

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (typical)
250 cd/m²

Brightness (peak)
250 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

*This software can only be used with Windows 10

Color Gamut
72% NTSC (CIE 1931)

Color Support (typical)
16.7 Million

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2
1 x VGA

Audio Signal
1 x Audio Combo
(3.5 mm; in/out)

USB Hub
Yes

USB Upstream
1 x USB 3.2 Gen1

USB Downstream
2 x USB 3.2 Gen1 (1 x BC 1.2)

MULTI-MEDIA

Integrated Webcam
Yes (1080p, IRRGB camera)

Integrated Microphone
Yes

Integrated Speakers
Yes (2 x 3W)

SPECIAL FEATURES

Software
Lenovo ThinkColour (Lenovo
Display Control Center)¹

POWER

Power Consumption
(Typ./Max)
13W / 43W

Power Consumption
Sleep/O Mode
< 0.5W

Power Consumption
Switch-o Mode
< 0.3W

ENERGY STAR Power
Consumption (P_{on}/E_{TEC})
10.75W / 33.81kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max. range)
150 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny
support
Yes (sold separately)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
1.8 mm

Bezel Width (top/bottom)
1.8 / 22.0 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
390.0 x 187.0 x 577.0 mm
15.35 x 7.36 x 22.72 inches

Size Unpacked w/ Stand
(D x H x W, mm/inch)
(lowest position)
205.0 x 413.0 x 489.3 mm
8.07 x 16.26 x 19.26 inches

Size Unpacked w/ Stand
(D x H x W, mm/inch)
(highest position)
205.0 x 563.0 x 489.3 mm
8.07 x 22.17 x 19.26 inches

Size Unpacked w/o Stand
(head only) (D x H x W, mm/inch)
48.3 x 314.4 x 489.3 mm
1.90 x 12.38 x 19.26 inches

Min. Distance from Table to Panel
(lowest pixel at bottom of screen, mm)
121.7 mm

Max. Distance from Table to Panel
(highest pixel at top of screen, mm)
539.4 mm

Weight Packed (kg/lbs.)
7.22kg / 15.92 lbs.

Weight Unpacked (kg/lbs.)
5.49kg / 12.10 lbs.

Weight (monitor head only)
(kg/lbs.)
3.03kg / 6.68 lbs.

Full Container Load
(40' STD/20' STD)
1188/550 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m)
1 x USB Type-A to Type-B cable
(1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Yes

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2. Enhanced Sign-in Security is not supported.

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Specifications may vary depending upon region.

ThinkVision T23d-10

DISPLAY

Panel Size

22.5 inch

Screen Dimensions (H x V) (mm)

496.2 x 313.9

Panel Type

In-Plane Switching

Backlight

WLED

Aspect Ratio

16:10

Resolution

1920 x 1200

Pixel Pitch (H x V) (mm)

0.25 x 0.25

Viewing Angle (H x V)

178°/178°

Response Time (gray to gray)

4 ms (extreme mode)

6 ms (normal mode)

Contrast Ratio (typical)

1000:1

Dynamic Contrast Ratio (typical)

3M:1

Color Gamut NTSC (CIE 1931)

72%

Color Support

16.7M

CONNECTIVITY

Video Input Signals

VGA + HDMI 1.4 + DP 1.2

Video Cable Length

1.8 m

MULTI-MEDIA

Optional Soundbar Support

Yes

DIMENSIONS

Size Packed (D x H x W) (mm/inch)

655 x 422 x 160 mm / 25.78 x 16.61 x 6.30 inch

Size Unpacked w/stand (D x H x W) (mm/inch) (Lowest Position)

251.9 x 381.9 x 501.2 mm / 9.9 x 15.04 x 19.73 inch

Size Unpacked w/stand (D x H x W) (mm/inch) (Highest Position)

251.9 x 491.9 x 501.2 mm / 9.9 x 19.37 x 19.73 inch

Size Unpacked w/o stand (D x H x W) (mm/inch) (Head Only)

43.4 x 326.5 x 501.2 mm / 1.71 x 13.54 x 19.73 inch

Weight Packed (kg/lbs.)

6.84 kg / 15.05 lbs.

Weight Unpacked (kg/lbs.)

4.85 kg / 10.67 lbs.

Weight (Monitor Head Only) (kg/lbs.)

2.87 kg / 6.31 lbs.

SPECIAL FEATURES

Anti-Glare

Yes

Thin Client Support (Tiny)

Yes (by Tiny Clamp Bracket Kit+VESA mount PN:4XFON82412+PN:4XFON03161)

MECHANICAL

Tilt Angle (front/back)

-5°/+30°

Swivel Angle (left/right)

-45°/+45°

Lift (Max range)

110 mm

Pivot

-90°/+90°

VESA Mount

Yes (100 mm)

Kensington Lock Slot

Yes

Cable Management

Yes

Bezel Color

Raven Black

Bezel Width (Side)

2.3 mm

WHAT'S IN THE BOX

Monitor with stand

1 x Power cable

1 x DP-DP cable

1 x VGA cable

Quick setup guide

CERTIFICATIONS

ENERGY STAR Rating

8.0

CCC

Yes

TCO

TCO 7.0/TCO Edge 2.0

EPEAT

Silver

ULE

Gold

Windows Certification

Windows 7, Windows 10

China Energy Efficiency Standard

Tier 2

Ambient Operating Temperature

0°C to 50°C

Eye Comfort Certification

Yes



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Specifications may vary depending upon region.

ThinkVision T23i-20

DISPLAY

Panel Size
23-inch

Screen Dimensions
509.19 mm × 286.42 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.2652 × 0.2652 mm

Dot/Pixel Per Inch (DPI/PPI)
95.78

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (extreme mode)
6ms (normal mode)

Refresh Rate
60 Hz

Brightness (typical)
250 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
75% NTSC (CIE 1931)

Color Support (typical)
16.7 Million

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2
1 x VGA

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB 3.2 Gen 1
Type-B

USB Downstream
4 x USB 3.2 Gen 1
(1 x BC1.2)

POWER

Power Consumption (typ./max.)
14.5W / 52W

Power Consumption Sleep/O Mode
< 0.5 W

Power Consumption Switch-o Mode
< 0.3 W

Energystar Power Consumption (P_{on}/E_{TEC})
10.52W / 33.73kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (47-63 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max. range)
150 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Tiny Bracket Support
Yes (sold separately)

Nano Bracket Support
Yes (sold separately)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 / 22.0 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
175 x 387 x 599 mm
6.89 x 15.24 x 23.58 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
200 x 404.34 x 521.8 mm
7.87 x 15.92 x 20.54 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
200 x 554.34 x 521.8 mm
7.87 x 21.82 x 20.54 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
44.82 x 316.31 x 521.8 mm
1.76 x 12.45 x 20.54 inches

Min. Distance from Table to Panel (lowest pixel at bottom of screen, mm)
111.62 mm

Max. Distance from Table to Panel (highest pixel at bottom of screen, mm)
398.04 mm

Weight Packed (kg/lbs.)
7.5 kg / 16.53 lbs.

Weight Unpacked (kg/lbs.)
5.59 kg / 12.32 lbs.

Weight (monitor head only) (kg/lbs.)
3.32 kg / 7.32 lbs.

Full Container Load (40' STD / 20' STD)
1260 / 600 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m)
1 x USB Type-A to Type-B cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision T23i-30 Monitor

Display

Panel Size
23-inch

Screen Dimensions
517.2 mm x 290.4 mm

Panel Type
3-side NearEdgeless In-Plane Switching

Active Area
509.1 mm x 286.4 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.265 mm x 0.265 mm

Dot/Pixel Per Inch (DPI/PPI)
96

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode),
6ms (Normal Mode), 14ms (Off Mode)

Refresh Rate
60Hz

Brightness (Typical)
250 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut (Coverage Ratio)
72% NTSC (CIE 1931)

Color Support (Typical)
16.7 Million

Color Depth
8-bit (6+FRC)

Anti-Glare
Yes

Connectivity

Video Signal
1 x HDMI 1.4
1 x DP 1.2
1 x VGA

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB 3.0 Type-B

USB Downstream
4 x USB 3.0 Type-A

Special Features

Software
Lenovo ThinkColour (Lenovo Display Control Center)*

Natural Low Blue Light
Yes

Power

Power Consumption (Typ. / Max.)
15W / 48W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-Off Mode
< 0.3W

ENERGY STAR Power Consumption (Pon/E_{TEG})
11.88W / 37.05kWh

Power Supply
Internal

Voltage Required
AC 90 to 264 V (50-60Hz)

Mechanical

Tilt Angle (Front / Back)
-5° / 23.5°

Swivel Angle (Left / Right)
+45° / -45°

Lift (Max. Range)
155 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
2.0 mm

Bezel Width (Top / Bottom)
2.0 / 17.3 mm

Dimension

Size Packed (D x H x W) (mm/inch)
150.0 x 421.0 x 592.0 mm
5.91 x 16.57 x 23.31 inches

Size Unpacked w/ Stand (Lowest Position) (D x H x W) (mm/inch)
199.7 x 338.8 x 522.0 mm
7.86 x 13.34 x 20.55 inches

Size Unpacked w/ Stand (Highest Position) (D x H x W) (mm/inch)
199.7 x 493.8 x 522.0 mm
7.86 x 19.44 x 20.55 inches

Size Unpacked w/o Stand (Head Only) (D x H x W) (mm/inch)
46.4 x 313.1 x 522.0 mm
1.83 x 12.33 x 20.55 inches

Weight Packed (kg / lbs.)
7.3 kg / 16.1 lbs.

Weight Unpacked (kg / lbs.)
5.2 kg / 11.5 lbs.

Weight (Monitor Head Only) (kg / lbs.)
3.2 kg / 7.1 lbs.

What's in the Box

Monitor with Stand
Yes

Power Cable (Cable Length)
1 x Power Cable (1.8 m)

HDMI Cable (Cable Length)
1 x HDMI Cable (1.8 m)

USB Cable (Cable Length)
1 x USB 3.0 Type-A to Type-B Cable (1.8 m)

Quick Setup Guide
Yes

Warranty Booklet
Yes

Certification

ENERGY STAR Certification
Yes

CCC
Yes

TCO
9.0

TCO Edge
2.0

EPEAT
Gold

Volatile Organic Compound Certification
Yes

RoHS (2011/65/EU)
Yes

Windows Certification
Windows 10, Windows 11

China Energy Efficiency Standard
Tier 1

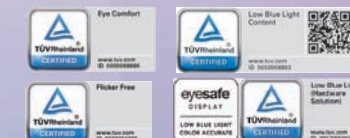
TÜV Rheinland Eye Comfort
Yes

TÜV Rheinland Low Blue Light
Yes

TÜV Rheinland Flicker Free
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



eyesafe
CERTIFIED

* This software can only be used with Windows 10 & Windows 11.

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Specifications may vary depending upon region.

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technology
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Lenovo

ThinkVision E24-20

DISPLAY

Panel Size
23.8-inch

Screen Dimensions
527.04 mm x 296.46 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.2745 x 0.2745 mm

Dot/Pixel Per Inch (DPI/PPI)
92

Viewing angle (H x V @ CR 10:1)
178° / 178°

Response Time
14ms

Refresh Rate
60 Hz

Brightness (typical)
250 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
72% NTSC (CIE 1931)

Color Support (typical)
16.7 Million

Color Depth
8-bit

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2
1 x VGA

MULTI-MEDIA

Integrated Speakers
Yes (2 x 1.5W)

POWER

Power Consumption (typ./max)
18W / 24W

**Power Consumption
Sleep/Off Mode**
< 0.5W

**Power Consumption
Switch Off-Mode**
< 0.5W

ENERGY STAR Power Consumption
(P_{on}/E_{TEC})
12.98W / 40.98kWh

Power Supply
Internal

Voltage Required
AC 90 to 264 V (47-63 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 22°

Lift (max range)
155 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre Tiny Support*
Yes, by Sandwich Mounting Kit
(PN: 4XHON04098)

Kensington Lock Slot
Yes

Bezel Color
Raven Black

Bezel Width (side)
3.1 mm

Bezel Width (top/bottom)
3.1 / 20.9 mm

DIMENSION

Size Packed
(D x H x W, mm/inch)
145.0 x 397.0 x 638.0 mm
5.71 x 15.63 x 25.12 inches

Size Unpacked w/ Stand
(D x H x W, mm/inch)
(lowest position)
178.6 x 317.1 x 541.8 mm
7.03 x 12.48 x 21.33 inches

Size Unpacked w/ Stand
(D x H x W, mm/inch)
(highest position)
178.6 x 462.5 x 541.8 mm
7.03 x 18.21 x 21.33 inches

Size Unpacked w/o Stand
(head only) (D x H x W, mm/inch)
41.7 x 326.4 x 541.8 mm
1.64 x 12.85 x 21.33 inches

Weight Packed (kg/lbs.)
5.70 kg / 12.57 lbs.

Weight Unpacked (kg/lbs.)
4.80 kg / 10.58 lbs.

Weight (Monitor Head Only)
(kg/lbs.)
3.10 kg / 6.83 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x HDMI cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Silver

RoHS (2011/65/EU)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



* Optional support.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision E24-28 Monitor

DISPLAY

Panel Size

23.8-inch

Screen Dimensions

535.0 mm x 313.0 mm

Panel Type

In-Plane Switching

Active Area

527.0 mm x 296.5 mm

Backlight

WLED

Aspect Ratio

16:9

Resolution

1920 x 1080

Pixel Pitch

0.275 mm x 0.275 mm

Dot/Pixel Per Inch (DPI/PPI)

93

Viewing Angle (H x V @ CR 10:1)

178° / 178°

Response Time

4ms (Extreme Mode), 6ms (Normal Mode)

Refresh Rate

60Hz

Brightness (Typical)

250 cd/m²

Contrast Ratio (Typical)

1000:1

Dynamic Contrast Ratio (Typical)

3M:1

Color Gamut (Coverage Ratio)

72% NTSC (CIE 1931)

Color Support (Typical)

16.7 Million

Color Depth

8-bit (6+FRC)

Anti-Glare

Yes

CONNECTIVITY

Video Signal

1 x HDMI 1.4

1 x DP 1.2

1 x VGA

Audio Signal

1 x Audio Out (3.5 mm)

HDCP Compliant

Yes (Support HDCP1.4)

MULTIMEDIA

Integrated Speakers

Yes (2 x 1.5W)

POWER

Power Consumption (Typ. / Max.)

25W / 33W

Power Consumption Sleep/Off Mode

< 0.5W

Power Consumption Switch-Off Mode

< 0.3W

ENERGY STAR Power Consumption (Pon / E_{TEC})

11.85W / 37.81kWh

Power Supply

Internal

Voltage Required

AC 100 to 240 V (50-60Hz)

MECHANICAL

Tilt Angle (Front / Back)

-5° / 22°

Swivel Angle (Left / Right)

-180° / 180°

Lift Range

155 ±5 mm

Pivot

-360° / 360°

VESA Mount Capability

Yes (100 x 100 mm)

ThinkCentre M Series Tiny Support

Yes, by Sandwich Mounting Kit (PN: 4XHON04098)¹

Kensington Lock Slot

Yes

Cable Management

Yes

Bezel Color

Raven Black

Bezel Width (Side)

2.3 mm

Bezel Width (Top / Bottom)

2.3 / 20.5 mm

DIMENSION

Size Packed (D x H x W) (mm/inch)

145.0 x 397.0 x 638.0 mm

5.71 x 15.63 x 25.12 inches

Size Unpacked w/ Stand

(D x H x W) (mm/inch) (Lowest Position)

185.7 x 336.3 x 540.4 mm

7.31 x 13.24 x 21.28 inches

Size Unpacked w/ Stand

(D x H x W) (mm/inch) (Highest Position)

185.7 x 462.1 x 540.4 mm

7.31 x 18.19 x 21.28 inches

Size Unpacked w/o Stand (Head Only)

(D x H x W) (mm/inch)

43.5 x 325.3 x 540.4 mm

1.71 x 12.81 x 21.28 inches

Weight Packed (kg / lbs.)

6.4 kg / 14.1 lbs.

Weight Unpacked (kg / lbs.)

4.9 kg / 10.8 lbs.

Weight (Monitor Head Only)

2.8 kg / 6.2 lbs.

WHAT'S IN THE BOX

Monitor with Stand

Yes

Power Cable (Cable Length)

1 x Power Cable (1.8 m)²

HDMI Cable (Cable Length)

1 x HDMI Cable (1.8 m)³

Quick Setup Guide

Yes

Warranty Booklet

Yes

CERTIFICATION

ENERGY STAR Certification

Yes

CCC

Yes

TCO

8.0

TCO Edge

2.0

EPEAT

Silver

Volatile Organic Compound Certification

Yes

RoHS (2011/65/EU)

Yes

Windows Certification

Windows 7, Windows 10

TÜV Rheinland Eye Comfort

Yes

TÜV Rheinland Low Blue Light

Yes

TÜV Rheinland Flicker Free

Yes

TÜV Low Blue Light (Hardware Solution)

Yes



¹ Sold separately. | ² Optional; Available in US, Canada, Brazil, LAS (except AR, CL), LAS (Argentina, Chile), AP-ANZ, AP-Japan, AP-China, EMEA SPB, direct ship only. | ³ Subject to EC plan.

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Specifications may vary depending upon region.

ThinkVision E24-29 Monitor

DISPLAY

Panel Size

23.8-inch

Screen Dimensions

534.6 mm x 308.5 mm

Panel Type

3-side NearEdgeless VA

Active Area

527.0 mm x 296.5 mm

Backlight

WLED

Aspect Ratio

16:9

Resolution

1920 x 1080

Pixel Pitch

0.275 mm x 0.275 mm

Dot/Pixel Per Inch (DPI/PPI)

93

Viewing Angle (H x V @ CR 10:1)

178° / 178°

Response Time

4ms (Extreme Mode), 6ms (Normal Mode)

Refresh Rate

60Hz

Brightness (Typical)

250 cd/m²

Contrast Ratio (Typical)

3000:1

Dynamic Contrast Ratio (Typical)

3M:1

Color Gamut (Coverage Ratio)

72% NTSC (CIE 1931)

Color Support (Typical)

16.7 Million

Color Depth

8-bit (6+FRC)

Anti-Glare

Yes

CONNECTIVITY

Video Signal

1 x HDMI 1.4

1 x DP 1.2

1 x VGA

MULTIMEDIA

Integrated Speakers

Yes (2 x 1.5W)¹

POWER

Power Consumption (Typ. / Max.)

25W / 33W

Power Consumption Sleep/Off Mode

< 0.5W

Power Consumption Switch-Off Mode

< 0.3W

ENERGY STAR Power Consumption (Pon / E_{TEC})

12W / 39kWh

Power Supply

Internal

Voltage Required

AC 100 to 240 V (50-60Hz)

MECHANICAL

Tilt Angle (Front / Back)

-5° / 22°

Swivel Angle (Left / Right)

-360° / 360°

Lift Range

155 mm

Pivot

-90° / 90°

VESA Mount Capability

Yes (100 x 100 mm)

ThinkCentre M Series Tiny Support

Yes, by Sandwich Mounting Kit

(PN: 4XHON04098)²

Kensington Lock Slot

Yes

Bezel Color

Raven Black

Bezel Width (Side)

2.3 mm

Bezel Width (Top / Bottom)

2.3 / 20.5 mm

DIMENSION

Size Packed (D x H x W) (mm/inch)

145.0 x 397.0 x 638.0 mm

5.71 x 15.63 x 25.12 inches

Size Unpacked w/ Stand (D x H x W) (mm/inch) (Lowest Position)

185.7 x 336.3 x 540.4 mm

7.31 x 13.24 x 21.28 inches

Size Unpacked w/ Stand (D x H x W) (mm/inch) (Highest Position)

185.7 x 462.1 x 540.4 mm

7.31 x 18.19 x 21.28 inches

Size Unpacked w/o Stand (Head Only) (D x H x W) (mm/inch)

43.5 x 325.3 x 540.4 mm

1.71 x 12.81 x 21.28 inches

Weight Packed (kg / lbs.)

6.0 kg / 13.2 lbs.

Weight Unpacked (kg / lbs.)

4.5 kg / 9.9 lbs.

Weight (Monitor Head Only)

2.9 kg / 6.4 lbs.

WHAT'S IN THE BOX

Monitor with Stand

Yes

Power Cable (Cable Length)

1 x Power Cable (1.8 m)

HDMI Cable (Cable Length)

1 x HDMI Cable (1.8 m)

Quick Setup Guide

Yes

CERTIFICATION

ENERGY STAR Certification

Yes

CCC

Yes

TCO

8.0

TCO Edge

2.0

EPEAT

Gold

RoHS (2011/65/EU)

Yes

Windows Certification

Windows 7, Windows 10

China Energy Efficiency Standard

Tier 1

TÜV Rheinland Eye Comfort

Yes

TÜV Rheinland Low Blue Light

Yes



¹ For ROW (not applicable for PRC region). | ² Sold separately.

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Specifications may vary depending upon region.

ThinkVision E24q-20

DISPLAY

Panel Size
23.8-inch

Screen Dimensions
534.7 mm x 313.2 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
526.9 mm x 296.4 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2058 mm x 0.2058 mm

Dot/Pixel Per Inch (DPI/PPI)
123

Viewing angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
75Hz

Brightness (typical)
300 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB

Color Support (typical)
16.7 Million

Color Depth
8-bit

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2

Audio Signal
1 x Audio Out (3.5mm)

MULTI-MEDIA

Integrated Speakers
Yes (2 x 2W)

POWER

Power Consumption (typical/max)
22W / 32W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-off Mode
< 0.3W

ENERGY STAR Power Consumption (Pon/E_{TEC})
17W / 53kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 22°

Swivel Angle (left/right)
360°

Lift Range
155 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre Tiny Support*
Yes, by Sandwich Mounting Kit
(PN: 4XHON04098)

Kensington Lock Slot
Yes

Bezel Color
Raven Black

DIMENSION

Size Packed (D x H x W, mm/inch)
421.0 x 159.0 x 690.0 mm
16.57 x 6.26 x 27.17 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (Lowest Position)
180.3 x 320.5 x 539.8 mm
7.10 x 12.62 x 21.25 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (Highest Position)
180.3 x 464.5 x 539.8 mm
7.10 x 18.29 x 21.25 inches

Size Unpacked w/o Stand (D x H x W, mm/inch) (Head Only)
44.0 x 325.7 x 539.8 mm
1.73 x 12.82 x 21.25 inches

Weight Packed (kg/lb)
7.0 kg / 15.5 lbs.

Weight Unpacked (kg/lb)
5.0 kg / 11.1 lbs.

Weight (Monitor Head Only) (kg/lb)
3.3 kg / 7.3 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8m)
1 x HDMI cable (1.8m)
Quick setup guide

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Silver

RoHS (2011/65/EU)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

TÜV Rheinland Flicker Free
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



* Optional support.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

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Specifications may vary depending upon region.

ThinkVision P24h-20

DISPLAY

Panel Size
23.8-inch

Screen Dimensions
526.85 mm x 296.35 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2058 x 0.2058 mm

Dot/Pixel Per Inch (DPI/PPI)
123

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (extreme mode)
6ms (normal mode)

Refresh Rate
60 Hz

Brightness (typical)
300 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB,
99% BT.709,
84% DCI-P3

Color Support (typical)
16.7 Million

Processor LUT
8-bit

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C Gen1
(DP1.2 Alt Mode)
1 x HDMI 1.4
1 x DP 1.2
1 x DP 1.2 (Out)

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

Ethernet
Yes (10M/100M/1000M)

USB Upstream
1 x USB 3.1 Gen1
(by USB Type-C Gen1)

USB Downstream
4 x USB 3.1 Gen1 (1 x BC1.2)

MULTI-MEDIA

Integrated Speakers
Yes (2 x 1W)

Optional Soundbar Support
Yes (PN OA36190)

SPECIAL FEATURES

Factory Calibration
Yes (Avg. E<2)

Software
Yes (ThinkColor 2.0)¹

POWER

Power Consumption (typ./max.)
23W / 132W

Power Consumption Sleep/O Mode
≤0.5W

Power Consumption Switch-o Mode
≤0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
18.1W / 57.4kWh

Power Supply
Internal

USB Type-C Power Delivery (W)
up to 75 W²

Smart Power
Yes

Voltage Required
AC 100 to 240 V (47-63 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max. range)
150 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2 mm

Bezel Width (top/bottom)
2 / 21.4 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
620 x 149 x 423 mm
24.4 x 5.9 x 16.7 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
205 x 420 x 539.8 mm
8.07 x 16.5 x 21.3 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
205 x 570 x 539.8 mm
8.07 x 22.4 x 21.3 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
44.6 x 325.7 x 539.8 mm
1.8 x 12.8 x 21.3 inches

Min. Distance from Table to Panel (lowest pixel at bottom of screen, mm)
117.9 mm

Max. Distance from Table to Panel (highest pixel at top of screen, mm)
415 mm

Weight Packed (kg/lbs.)
8.1 kg / 17.86 lbs.

Weight Unpacked (kg/lbs.)
6.18 kg / 13.6 lbs.

Weight (monitor head only) (kg/lbs.)
3.85 kg / 7.89 lbs.

Full Container Load (40' STD/20' STD)
1395 / 645 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m) (NA only)
1 x USB Type-C to Type-C cable (1.8 m)
1 x USB Type-C to Type-A cable (1.8 m) (NA only)
Factory calibration report
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Silver

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

¹This software can only be used with Windows 10
²up to 75 W power delivery to compatible devices by USB Type-C

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.



ThinkVision P24h-2L Monitor

DISPLAY

Panel Size
23.8-inch

Screen Dimensions
535 mm x 313 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
526.85 mm x 296.35 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2058 x 0.2058 mm

Dot/Pixel Per Inch (DPI/PPI)
123

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (typical)
300 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB, 99% BT.709,
83% DCI-P3

Color Support (typical)
16.7 Million

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C³ Gen1
(DP1.2 Alt Mode)
1 x HDMI 1.4
1 x DP 1.2
1 x DP 1.2 (Out)

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

Ethernet
Yes

USB Upstream
1 x USB 3.2 Gen1
(by USB Type-C Gen1)

USB Downstream
4 x USB 3.2 Gen1 (1 x BC1.2)

MULTI-MEDIA

Optional Soundbar Support
Yes (PN OA36190)

Integrated Speakers
Yes (2 x 1W)

SPECIAL FEATURES

Software
Lenovo ThinkColour (Lenovo Display Control Center)²

POWER

Power Consumption (typ./max.)
23W / 132W

Power Consumption Sleep/Off Mode
≤ 0.5W

Power Consumption Switch-off Mode
≤ 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
18.1W / 57.4kWh

Power Supply
Internal

USB Type-C Power Delivery (W)
up to 75 W⁴

Smart Power¹
Yes

Voltage Required
AC 100 to 240 V (47-63 Hz)

MECHANICAL

Tilt Angle (front/back)

-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (Max range)
150 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny Support
Yes, by Tiny/Nano monitor clamp II (PN: 4XHOZ42451) and Tiny VESA mount II (PN: 4XFON03161)

ThinkCentre M Series Nano Support
Yes, by Tiny/Nano monitor clamp II (PN: 4XHOZ42451) and Nano VESA mount (PN: 4XFOV81630)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 mm / 21.4 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
620.0 x 423.0 x 149.0 mm
24.40 x 16.70 x 5.90 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (Lowest Position)
205.0 x 420.0 x 539.80 mm
8.07 x 16.53 x 21.25 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
205.0 x 570.0 x 539.8 mm
8.07 x 22.44 x 21.25 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
46.6 x 325.7 x 539.8 mm
1.83 x 12.82 x 21.25 inches

Weight Packed (kg/lbs.)
8.46 kg / 18.65 lbs.

Weight Unpacked (kg/lbs.)
6.39 kg / 14.09 lbs.

Weight (monitor head only) (kg/lbs.)
4.10 kg / 9.04 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m)
(US & Canada only)
1 x USB Type-C to Type-C cable (1.8 m)
1 x USB Type-C to Type-A cable (1.8 m) (US & Canada only)
Factory calibration report
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Silver

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



¹ The Smart Power function intelligently detects overall power consumption and dynamically manages the power delivery to each device. | ² This software can only be used with Windows 10. | ³ USB Type-C* and USB-C* are registered trademarks of USB Implementers Forum. | ⁴ Up to 75 W power delivery to compatible devices by USB Type-C. Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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ThinkVision P24h-30 Monitor

Display

Panel Size
23.8-inch

Screen Dimensions
534.9 mm x 303.1 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
526.8 mm x 296.3 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.205 mm x 0.205 mm

Dot/Pixel Per Inch (DPI/PPI)
123

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode),
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (Typical)
300 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut (Coverage Ratio)
99.0% sRGB (CIE 1931),
99.0% BT.709 (CIE 1976)

Color Gamut (Color Area Ratio)
111.0% sRGB

Color Support (Typical)
16.7 Million

Color Depth
8-bit (6+FRC)

HDR Compliance
Yes (HDR10)

Anti-Glare
Yes

Connectivity

Video Signal
1 x USB Type-C¹ Gen 1
(DP 1.4 Alt Mode)
1 x HDMI 2.0
1 x DP 1.4
1 x DP Out

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

Ethernet
Yes (10M/100M/1000M)

USB Upstream
1 x USB 3.2 Gen 1² (by USB Type-C¹)

USB Downstream
4 x USB 3.2 Gen 1² (1 x BC1.2)

Multimedia

Modular Camera/Speaker Support
Yes (Optional Support³)

Special Features

Factory Calibration
Yes (Delta-E Color Accuracy (<2))

Software
Lenovo ThinkColour
(Lenovo Display Control Center)⁴

Natural Low Blue Light
Yes

Power

Power Consumption (Typ. / Max.)
27W / 161W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-Off Mode
< 0.3W

ENERGY STAR Power Consumption (Pon/E_{TEC})
18W / 57kWh

Power Supply
Internal

USB Type-C¹ (DP Alt Mode) Power Delivery⁵
Up to 100W

Smart Power
Yes

Voltage Required
AC 100 to 240 V (50-60 Hz)

Mechanical

Tilt Angle (Front / Back)
-5° / 23.5°

Swivel Angle (Left / Right)
-45° / 45°

Lift (Max. Range)
155 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
2.0 mm

Bezel Width (Top / Bottom)
2.0 / 18.0 mm

Dimension

Size Packed (D x H x W) (mm/inch)
160.0 x 420.0 x 620.0 mm
6.30 x 16.54 x 24.41 inches

Size Unpacked w/ Stand (Lowest Position) (D x H x W) (mm/inch)
199.7 x 348.8 x 539.5 mm
7.86 x 13.73 x 21.24 inches

Size Unpacked w/ Stand (Highest Position) (D x H x W) (mm/inch)
199.7 x 503.8 x 539.5 mm
7.86 x 19.83 x 21.24 inches

Size Unpacked w/o Stand (Head Only) (D x H x W) (mm/inch)
46.5 x 323.7 x 539.5 mm
1.83 x 12.74 x 21.24 inches

Weight Packed (kg / lbs.)
8.6 kg / 19.0 lbs.

Weight Unpacked (kg / lbs.)
5.7 kg / 12.6 lbs.

Weight (Monitor Head Only) (kg / lbs.)
3.8 kg / 8.4 lbs.

What's in the Box

Monitor with Stand
Yes

Power Cable (Cable Length)
1 x Power Cable (1.8 m)

DP Cable (Cable Length)
1 x DP 1.2 Cable (1.8 m) (For NA, Brazil, and PRC WS; No for EMEA, AP, LAS, and PRC SA)

HDMI Cable (Cable Length)
1 x HDMI 2.0 Cable (1.8 m) (For PRC SA; No for PRC WS, ROW NA, EMEA, AP, and LA)

USB-C¹ Cable (Cable Length)
USB Type-C¹ Gen 1 Cable (1.8 m)

USB Cable (Cable Length)
USB Type-C¹ to Type-A Cable (1.8 m) (For NA and Brazil; No for PRC WS, PRC SA, ROW EMEA, AP, and LAS)

Factory Calibration Report
Yes

Quick Setup Guide
Yes

Warranty Booklet
Yes

Certification

ENERGY STAR Certification
Yes

CCC
Yes

TCO
9.0

TCO Edge
2.0

EPEAT
Gold

Volatile Organic Compound Certification
Yes

RoHS (2011/65/EU)
Yes

Windows Certification
Windows 10, Windows 11

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

TÜV Rheinland Low Blue Light
Yes

TÜV Rheinland Flicker Free
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



¹ USB Type-C* and USB-C* are registered trademarks of USB Implementers Forum. | ² Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2. | ³ Compatible with ThinkVision VoIP Stack MC60 Monitor Webcam and MS30 Monitor Soundbar. | ⁴ This software can only be used with Windows 10 & Windows 11. | ⁵ Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

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Specifications may vary depending upon region.

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ThinkVision P24q-20

DISPLAY

Panel Size
23.8-inch

Screen Dimensions
526.85 mm x 296.35 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2058 x 0.2058 mm

Dot/Pixel Per Inch (DPI/PPI)
123

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (extreme mode)
6ms (normal mode)

Refresh Rate
60 Hz

Brightness (typical)
300 cd/m2

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB,
99% BT.709,
84 % DCI-P3

Color Support (typical)
16.7 Million

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2
1 x DP 1.2 (out)

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB3.1 Gen1 Type-B

USB Downstream
4 x USB3.1 Gen1 (1 x BC1.2)

SPECIAL FEATURES

Factory Calibration
Yes (Avg. Delta E<2)

Software
Lenovo ThinkColour (Lenovo
Display Control Center)¹

POWER

Power Consumption (typical/max)
20W / 61W

Power Consumption Sleep/O Mode
≤ 0.5W

Power Consumption Switch-o Mode
≤ 0.3W

ENERGY STAR Power Consumption
(P_{on}/E_{TEC})
16.04W / 51.61kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (47-63 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (Max range)
150 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 X 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 / 21.4 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
620 x 149 x 423 mm /
24.4 x 5.9 x 16.7 inches

Size Unpacked w/ Stand
(D x H x W, mm/inch) (lowest position)
205 x 420 x 539.8 mm /
8.07 x 16.5 x 21.3 inches

Size Unpacked w/ Stand
(D x H x W, mm/inch) (highest position)
205 x 570 x 539.8 mm /
8.07 x 22.4 x 21.3 inches

Size Unpacked w/o Stand
(head only) (D x H x W, mm/inch)
44.6 x 325.7 x 539.8 mm /
1.8 x 12.8 x 21.3 inches

Min. Distance from Table to Panel
(lowest pixel at bottom of screen, mm)
117.9 mm

Max. Distance from Table to Panel
(highest pixel at top of screen, mm)
415 mm

Weight Packed (kg/lbs.)
8.1 kg / 17.86 lbs.
Weight Unpacked (kg/lbs.)
6.18 kg / 13.6 lbs.

Weight (monitor head only) (kg/lbs.)
3.85 kg / 7.89 lbs.

Full Container Load (40' STD / 20' STD)
1395 / 645 units

WHAT'S IN THE BOX

MONITOR WITH STAND
1 X POWER CABLE (1.8 M)
1 X DP CABLE (1.8 M)
1 X USB TYPE-A TO TYPE-B CABLE (1.8 M)
FACTORY CALIBRATION REPORT
QUICK SETUP GUIDE

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Silver

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



¹This software can only be used with Windows 10

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB Specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

ThinkVision P24q-30 Monitor

Display

Panel Size
23.8-inch

Screen Dimensions
534.9 mm x 303.1 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
526.8 mm x 296.3 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.205 mm x 0.205 mm

Dot/Pixel Per Inch (DPI/PPI)
123

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode),
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (Typical)
300 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut (Coverage Ratio)
99.0% sRGB (CIE 1931),
99.0% BT.709 (CIE 1976)

Color Gamut (Color Area Ratio)
111.0% sRGB

Color Support (Typical)
16.7 Million

Color Depth
8-bit (6+FRC)

HDR Compliance
Yes (HDR10)

Anti-Glare
Yes

Connectivity

Video Signal
1 x HDMI 2.0
1 x DP 1.4
1 x DP Out

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

Ethernet
Yes (10M/100M/1000M)

USB Upstream
1 x USB 3.2 Gen 1¹ (by USB Type-B)

USB Downstream
4 x USB 3.2 Gen 1¹ (1 x BC1.2)

Multimedia

Modular Camera/Speaker Support
Yes (Optional Support²)

Special Features

Factory Calibration
Yes (Delta-E Color Accuracy (<2))

Software
Lenovo ThinkColour
(Lenovo Display Control Center)³

Natural Low Blue Light
Yes

Power

Power Consumption (Typ. / Max.)
25W / 65W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-Off Mode
< 0.3W

ENERGY STAR Power Consumption (Pon/E_{TEC})
16W / 49kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60 Hz)

Mechanical

Tilt Angle (Front / Back)
-5° / 23.5°

Swivel Angle (Left / Right)
-45° / 45°

Lift (Max. Range)
155 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
2.0 mm

Bezel Width (Top / Bottom)
2.0 / 18.0 mm

Dimension

Size Packed (D x H x W) (mm/inch)
160.0 x 420.0 x 620.0 mm
6.30 x 16.54 x 24.41 inches

Size Unpacked w/ Stand (Lowest Position) (D x H x W) (mm/inch)
199.7 x 348.8 x 539.5 mm
7.86 x 13.73 x 21.24 inches

Size Unpacked w/ Stand (Highest Position) (D x H x W) (mm/inch)
199.7 x 503.8 x 539.5 mm
7.86 x 19.83 x 21.24 inches

Size Unpacked w/o Stand (Head Only) (D x H x W) (mm/inch)
46.5 x 323.7 x 539.5 mm
1.83 x 12.74 x 21.24 inches

Weight Packed (kg / lbs.)
8.3 kg / 18.3 lbs.

Weight Unpacked (kg / lbs.)
5.7 kg / 12.6 lbs.

Weight (Monitor Head Only) (kg / lbs.)
3.8 kg / 8.4 lbs.

What's in the Box

Monitor with Stand
Yes

Power Cable (Cable Length)
1 x Power Cable (1.8 m)

DP Cable (Cable Length)
1 x DP 1.2 Cable (1.8 m)

HDMI Cable (Cable Length)
1 x HDMI 2.0 Cable (1.8 m)
(For PRC WS and PRC SA;
No for ROW NA, EMEA, AP, and LA)

USB Cable (Cable Length)
USB Type-A to Type-B Cable (1.8 m)

Factory Calibration Report
Yes

Quick Setup Guide
Yes

Warranty Booklet
Yes

Certification

ENERGY STAR Certification
Yes

CCC
Yes

TCO
9.0

TCO Edge
2.0

EPEAT
Gold

Volatile Organic Compound Certification
Yes

RoHS (2011/65/EU)
Yes

Windows Certification
Windows 10, Windows 11

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

TÜV Rheinland Low Blue Light
Yes

TÜV Rheinland Flicker Free
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



¹ Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.
² Compatible with ThinkVision VoIP Stack MC60 Monitor Webcam and MS30 Monitor Soundbar. ³ This software can only be used with Windows 10 & Windows 11.

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ThinkVision® S24e-03

EXIBIÇÃO

Tamanho da tela
23,8"

Dimensões da tela (A x V)
527,04 x 296,46 mm

Tipo de tela
3-side NearEdgeless, VA

Luz de fundo
WLED

Proporção da tela
16:9

Resolução
1920 x 1080

Distância entre pixels (A x V)
0.2745 x 0.2745 mm

Ponto/pixel por polegada (DPI/PPI)
92

Ângulo de visão (H x V @ CR 10: 1)
178° / 178°

Tempo de resposta (cinza a cinza)
4 ms (modo extremo)
6 ms (modo normal)

Taxa de atualização
60 Hz

Brilho (típico)
250 cd/m²

Taxa de contraste (típica)
3000:1

Taxa de contraste dinâmico (típica)
3M:1

Color Gamut NTSC (CIE 1931)
72% NTSC

Suporte de cores
16,7 milhões

CONECTIVIDADE

Sinal de vídeo
1 x VGA
1 x HDMI 1.4

Comprimento do cabo de vídeo
1,8 m

Sinal de áudio
1 x saída de áudio (3,5 mm)

MULTIMÍDIA

Suporte opcional para alto-falantes
Sim

RECURSOS ESPECIAIS

Tecnologia de sincronização
FreeSync™

Suporte a Thin Client (Tiny)
Sim (pelo suporte VESA PN: 4XFON03161)

Antirreflexo
Sim

ENERGIA

Consumo de energia (min./max.)
24W / 31W

Modo de suspensão/desligamento da energia
< 0.3W

Modo de desligamento da energia
< 0.3W

Fonte de energia
Interna

Tensão necessária
CA 100 a 240 V (47/63 Hz)

MECÂNICO

Ângulo de inclinação (frontal/traseiro)
-5°/22°

Rotação vertical
Até 90°

Rotação horizontal
-160°/160°

Montagem VESA
Sim (100 mm), ocupado pelo stand com ajuste de altura

Trava Kensington™
Sim

Cor da moldura
Raven Black

Largura da moldura (lateral)
2.0 mm

Largura do painel (superior / inferior)
2.0/22 mm

DIMENSÃO

Tamanho embalado (L x A x P)
683 (L) x 183 (A) x 407 mm (P)

Tamanho desembalado c/ suporte posição mais baixa (L x A x P)
539,5 (L) x 410,8 (A) x 244,6 mm (P)

Tamanho desembalado c/ suporte posição mais alta (L x A x P)
539,5 (L) x 540,8 (A) x 244,6 mm (P)

Tamanho Desembalado sem suporte somente painel (L x A x P)
41,5 x 325,7 x 539,5 mm

Peso embalado
6,68 kg

Peso desembalado
5,2 kg

Peso (somente cabeça do monitor)
3,07 kg

O QUE VEM NA CAIXA

Folheto de informações
Monitor de tela plana
Cabo de alimentação
Cabo HDMI
Base
Suporte

CERTIFICAÇÕES

Classificação ENERGY STAR
7.1

CCC
Sim

EPEAT™
Silver

ULE
Gold

RoHS (EU 2002/95/EC)
Sim (2011/65/UE)

Certificação Windows
Windows 7, Windows 10

Certificação Low Blue Light
Sim



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As especificações podem variar dependendo da região.

Lenovo

ThinkVision S24e-20

DISPLAY

Panel Size
23.8-inch

Screen Dimensions
531.73 mm x 340.80 mm

Panel Type
3-side NearEdgeless, VA

Active Area
527.04 mm x 296.46 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.2745 x 0.2745 mm

Dot/Pixel Per Inch (DPI/PPI)
93

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (typical)
250 cd/m²

Contrast Ratio (typical)
3000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
72% NTSC (CIE 1931)

Color Support (typical)
16.7 Million

Anti-Glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x VGA

Audio Signal
1 x Audio Out (3.5 mm)

MULTIMEDIA

Optional Soundbar Support
Yes (PN number: OA36190)

SPECIAL FEATURES

Sync Technology
AMD FreeSync™*

POWER

Power Consumption (typical/max)
17.5W / 23.5W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-off Mode
< 0.5W

Energystar Power Consumption (P_{on}/E_{TEC})
12W / 36 kWh

Power Supply
Internal

Voltage Required
AC 100 to 240V (50—60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 22°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny Support
Yes, by Tiny VESA mount II
(PN: 4XFON03161)

ThinkCentre M Series Nano Support
Yes, by Nano VESA mount
(PN: 4XFOV81630)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.5 mm

Bezel Width (top/bottom)
2.5 / 22.4 mm

DIMENSIONS

Size Packed (D x H x W, mm/inch)
624.0 x 124.0 x 415.0 mm
24.57 x 4.88 x 16.34 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
173.1 x 434.5 x 540.4 mm
6.81 x 17.10 x 21.28 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
173.1 x 434.5 x 540.4 mm
6.81 x 17.10 x 21.28 inches

Size Unpacked w/o stand (Head Only) (D x H x W) (mm/inch)
45.5 x 327.2 x 540.4 mm
1.79 x 12.88 x 21.28 inches

Weight Packed (kg/lbs.)
5.42 kg / 11.95 lbs.

Weight Unpacked (kg/lbs.)
3.82 kg / 8.42 lbs.

Weight (Monitor Head Only) (kg/lbs.)
3.02 kg / 6.66 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x HDMI cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
8.0

TCO Edge
2.0

RoHS (EU 2002/95/EC)
Yes

EPEAT
Gold

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



*AMD FreeSync™ is enabled for AMD Radeon™ Series graphics cards.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision S24q-10

DISPLAY

Panel Size

23.8-inch

Screen Dimensions

526.85 mm x 296.35 mm

Panel Type

3-side NearEdgeless
In-Plane Switching

Backlight

WLED

Aspect Ratio

16:9

Resolution

2560 x 1440

Pixel Pitch

0.2058 x 0.2058 mm

Dot/Pixel Per Inch (DPI/PPI)

124

Viewing Angle (H x V @ CR 10:1)

178° / 178°

Response Time

4ms (extreme mode)

Refresh Rate

60 Hz

Brightness (typical)

240 cd/m²

Brightness (peak)

300 cd/m²

Contrast Ratio (typical)

1000:1

Dynamic Contrast Ratio (typical)

3M:1

Color Gamut

> 99% sRGB

Color Support (typical)

16.7 Million

Anti-glare

Yes

CONNECTIVITY

Video Signal

1 x HDMI 1.4
1 x DP 1.2

Audio Signal

1 x Audio Out (3.5 mm)

SPECIAL FEATURES

Tiny Support

Yes

POWER

Power Consumption (typical/max)

20W / 31W

Power Consumption Sleep/O Mode

< 0.5W

Power Consumption Switch-o Mode

< 0.3W

Power Supply

Internal

Energystar Power Consumption (P_{on}/E_{TEC})

16.76 W / 52.75 kWh

Voltage Required

AC 100 to 240 V (47/63 Hz)

MECHANICAL

Tilt Angle (front/back)

-5° / 22°

VESA Mount Capability

Yes (100 x 100 mm)

Kensington™ Lock Slot

Yes

Cable Management

Yes

Bezel Color

Raven Black

Bezel Width (side)

2 mm

Bezel Width (top/bottom)

2 / 21.4 mm

DIMENSION

Size Packed (D x H x W, mm/inch)

122 x 405 x 639 mm /
4.80 x 15.94 x 25.16 inches

Size Unpacked w/stand (D x H x W, mm/inch) (lowest position)

200 x 402.7 x 539.8 mm /
7.87 x 15.85 x 21.25 inches

Size Unpacked w/stand (D x H x W, mm/inch) (highest position)

200 x 402.7 x 539.8 mm /
7.87 x 15.85 x 21.25 inches

Size Unpacked w/o Stand (D x H x W, mm/inch) (head only)

42 x 325.7 x 539.8 mm /
1.65 x 12.82 x 21.25 inches

Min. Distance from Table to Panel (lowest pixel at bottom of screen, mm)

98.4 mm

Max. Distance from Table to Panel (highest pixel at top of screen, mm)

399.9 mm

Weight Packed (kg/lb)

5.10 kg / 11.24 lbs.

Weight Unpacked (kg/lb)

3.50 kg / 7.72 lbs.

Weight (monitor head only) (kg/lb)

3.21 kg / 7.08 lbs.

Full Container Load (40' STD / 20' STD)

1660 / 800 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x HDMI cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR® Rating

8.0

CCC

Yes

TCO

8.0

TCO Edge

2.0

EPEAT™

Silver

RoHS (EU 2002/95/EC)

Yes

Windows Certification

Windows 7, Windows 10

China Energy Efficiency Standard

Tier 1

TÜV Eye Comfort

Yes



Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision T24d-10 MONITOR

SPECIFICATIONS

DISPLAY		DIMENSIONS (W x D x H)	
Panel Size	24"	Size Packed (mm)	160 x 655 x 422
Panel Type	In-Plane Switching	(inches)	6.3" x 25.79" x 16.61"
Resolution	1920 x 1200	Size Unpacked with Stand (mm)	533.2 x 260.4 x 497.4
Backlight	WLED	(inches)	20.99" x 10.25" x 19.58"
Aspect Ratio	16:10	Size Monitor Head Only (mm)	533.2 x 42.3 x 355.1
Pixel Pitch (W x H) (mm)	0.27 x 0.27	(inches)	20.99" x 1.67" x 13.98"
Dot/Pixel Per Inch (DPI/PPI)	94 PPI	Distance from Table to Panel Lowest Pixel at Bottom of Screen (mm / inches)	56 / 2.2"
Anti-Glare	Yes	Highest Pixel at Top of Screen (mm / inches)	490 / 19.29"
Screen Dimensions (W x H) (mm)	518.4 x 324	Stand Base Footprint Area (mm)	250 x 250
(inches)	20.41" x 12.75"	(inches)	9.84" x 9.84"
Maximum Brightness (Typical)	300 cd/m ²	Weight Packed	Starting at 19.18 lbs (8.7 kg)
Viewing Angle (H/V at CR 10:1)	178°/178°	Unpacked	Starting at 12.41 lbs (5.63 kg)
Contrast Ratio (Typical)	1000:1	Monitor Head Only	Starting at 8.77 lbs (3.98 kg)
Dynamic Contrast Ratio	3M:1		
Color Gamut (CIE 1931)	99% sRGB		
Display Colors (Typical)	16.7 Million		
Response Time			
Extreme	4 ms		
Typical	7 ms		
Off	15 ms		
SIGNAL INPUT		POWER CONSUMPTION	
Video Input Signals	VGA + DisplayPort 1.2 + HDMI 1.4	Typical	22 W
Video Cables Supplied	VGA + DisplayPort + HDMI ¹	Maximum	64 W
Video Cable Length	1.8 m	Sleep-Mode	<0.3 W
USB Hub	USB 3.0 ²	Switch Off-Mode	<0.3 W
USB Cable Supplied	Yes	Power Supply	Internal
Audio-Out	Yes (3.5 mm)	Power Voltage	100 VAC – 240 VAC
		Voltage Dynamic Frequency	50 Hz – 60 Hz
SIGNAL INTERFACE / PERFORMANCE		ENVIRONMENTAL	
Horizontal Frequency	30 kHz - 83 KHz	Temperature Operating	0°C – 40°C
Vertical Frequency	50 Hz - 75 Hz	Non-Operating	-20°C – 60°C
Native Resolution	1920 x 1200	Humidity Operating	10% – 80%
Maximum Pixel Clock Speed/ Bandwidth		Non-Operating	5% – 95%
VGA	205 MHz	Altitude Operating	0 m – 5000 m
HDMI™	165 MHz	Non-Operating	0 ft – 40,000 ft
DisplayPort™	165 MHz	Arsenic-Free Glass	Yes
Default Color Temperature	6500 K	PVC-Free	Yes
Preset Display Modes	20	Mercury-Free	Yes
OSD Buttons	5	PCC % of Plastic Resins	>85%
OSD Languages	English, French, German, Spanish, Italian, Japanese, Simplified Chinese, Russian		
MECHANICAL		COMPLIANCE	
Tilt Angle (Front / Back)	-5° / 30°	EPEAT	Silver
Swivel Angle (Left / Right)	+/- 45°	ENERGY STAR Rating	8.0
Lift (mm)	110	ULE	Gold
Pivot	+/- 90°	TCO	TCO Display 7.0 / TCO Edge 2.0
VESA® Mount (mm x mm)	100 x 100	RoHS (EU 2002/95/EC)	Yes
Cable Management	Yes	China Energy Efficiency Standard	Tier 2
Kensington® Lock	Yes	Windows Certification	Windows 7 / Windows 10
Bezel Color	Business Black		
Bezel Width			
Top (mm / inches)	2 / 0.08"		
Bottom (mm / inches)	22.7 / 0.89"		
Sides (mm / inches)	2 / 0.08"		
WARRANTY AND AVAILABILITY			
		Warranty	3 Years
		Geography Availability	WW

¹ US & Canada only.

² Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen 1; 10 Gbit/s for USB 3.1 Gen 2 & 20 Gbit/s for USB 3.2.



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Lenovo

ThinkVision T24h-20

DISPLAY

Panel Size
23.8-inch

Screen Dimensions
526.85 mm x 296.35 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2058 x 0.2058 mm

Dot/Pixel Per Inch (DPI/PPI)
123

Viewing Angle
(H x V @ CR 10:1)
178° / 178°

Response Time
4ms (extreme mode)
6ms (normal mode)

Refresh Rate
60 Hz

Brightness (typical)
300 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio
(typical)
3M:1

Color Gamut
99% sRGB

Color Support (typical)
16.7 Million

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C Gen1
(DP 1.2 Alt Mode)
1 x HDMI 1.4
1 x DP 1.2

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB 3.1 Gen1
(by USB Type-C)

USB Downstream
4 x USB 3.1 Gen1 (1 BC)

MULTI-MEDIA

Optional Soundbar Support
Yes (PN number: OA36190)

POWER

Power Consumption
(typical/max)
23W / 120W

Power Consumption
Sleep/O Mode
≤ 0.5W

Power Consumption
Switch-o Mode
≤ 0.3W

Energystar Power Consumption (P_{on}/E_{TEC})
16.36W / 53.37kWh

Power Supply
Internal

USB Type-C Power Delivery (W)
up to 75W*

Smart Power
Yes

Voltage Required
AC 100 to 240 V (47-63 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max range)
150 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 / 24.1 mm

DIMENSIONS

Size Packed
(D x H x W, mm/inch)
620 x 149 x 423 mm
24.4 x 5.9 x 16.7 inches

Size Unpacked w/ Stand
(D x H x W, mm/inch)
(lowest position)
205 x 420 x 539.8 mm
8.07 x 16.5 x 21.3 inches

Size Unpacked w/ Stand
(D x H x W, mm/inch)
(highest position)
205 x 570 x 539.8 mm
8.07 x 22.4 x 21.3 inches

Size Unpacked w/o Stand
(head only) (D x H x W, mm/inch)
44.6 x 325.7 x 539.8 mm
1.8 x 12.8 x 21.3 inches

Min. Distance from Table
to Panel (lowest pixel at
bottom of screen, mm)
117.9 mm

Max. Distance from Table
to Panel (highest pixel at
top of screen, mm)
415 mm

Weight Packed (kg/lbs.)
8.1 kg / 17.86 lbs.

Weight Unpacked (kg/lbs.)
6.18 kg / 13.6 lbs.

Weight (monitor head only)
(kg/lbs.)
3.85 kg / 7.89 lbs.

Full Container Load
(40' STD / 20' STD)
1395 / 645 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m) (NA only)
1 x USB Type-C to Type-C cable (1.8 m)
1 x USB Type-C to Type-A cable (1.8 m) (NA only)
Quick setup guide

CERTIFICATIONS

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Silver

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



*Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision T24i-20

DISPLAY

Panel Size
23.8-inch

Screen Dimensions
527.04 mm x 296.46 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.2745 x 0.2745 mm

Dot/Pixel Per Inch (DPI/PPI)
93

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (extreme mode)
6ms (normal mode)

Refresh Rate
60 Hz

Brightness (typical)
250 cd/m²

Brightness (peak)
250 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
72% NTSC (CIE 1931)

Color Support (typical)
16.7 Million

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2
1 x VGA

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB 3.2 Gen1

USB Downstream
4 x USB 3.2 Gen1 (1 x BC 1.2)

MULTI-MEDIA

Optional Soundbar Support
Yes (PN OA36190)

POWER

Power Consumption (typ./max.)
14W / 55W

Power Consumption Sleep/O Mode
< 0.5W

Power Consumption Switch-o Mode
< 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
12.35W / 38.83kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max. range)
150 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Tiny Bracket Support
Yes (sold separately)

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 mm / 22.2 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
422.0 x 187.0 x 622.0 mm
16.61 x 7.36 x 24.49 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
205.0 x 409.3 x 539.8 mm
8.07 x 16.11 x 21.25 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
205.0 x 559.3 x 539.8 mm
8.07 x 22.02 x 21.25 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
46.8 x 326.5 x 539.8 mm
1.84 x 12.85 x 21.25 inches

Min. Distance from Table to Panel (lowest pixel at bottom of screen, mm)
106.62 mm

Max. Distance from Table to Panel (highest pixel at top of screen, mm)
557.0 mm

Weight Packed (kg/lbs.)
8.17 kg/18.01 lbs

Weight Unpacked (kg/lbs.)
5.90 kg/13.01 lbs.

Weight (monitor head only) (kg/lbs.)
3.30 kg/7.28 lbs.

Full Container Load (40' STD/20' STD)
1140/540 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m)
1 x USB Type-A to B cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

ThinkVision T24i-2L

DISPLAY

Panel Size
23.8-inch

Screen Dimensions
535.0 mm x 313.0 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
527.04 mm x 296.46 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.2745 x 0.2745 mm

Dot/Pixel Per Inch (DPI/PPI)
93

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (typical)
250 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
72% NTSC (CIE 1931)

Color Support (typical)
16.7 Million

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2
1 x VGA

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB 3.2 Gen1

USB Downstream
4 x USB 3.2 Gen1 (1 x BC 1.2)

MULTI-MEDIA

Optional Soundbar Support
Yes (PN: 0A36190)

POWER

Power Consumption (typ./max.)
16W / 55W

Power Consumption Sleep/O Mode
< 0.5W

Power Consumption Switch-o Mode
< 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
13W / 46kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max. range)
150 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

ThinkCentre M Series Tiny Support
Yes, by Tiny/Nano monitor clamp II (PN: 4XHOZ42451) and Tiny VESA mount II (PN: 4XFON03161)

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 mm / 22.2 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
422.0 x 160.0 x 618.0mm
16.61 x 6.30 x 24.33 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
205.0 x 409.3 x 539.8mm
8.07 x 16.11 x 21.25 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
205.0 x 559.3 x 539.8mm
8.07 x 22.02 x 21.25 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
44.1 x 326.5 x 539.8mm
1.74 x 12.85 x 21.25 inches

Weight Packed (kg/lbs.)
8.40kg / 18.52 lbs.

Weight Unpacked (kg/lbs.)
5.90 kg / 13.01 lbs.

Weight (monitor head only) (kg/lbs.)
3.65kg / 8.05 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m)
1 x USB Type-A to B cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

Eyesafe Display Certification
Yes



Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

ThinkVision T24m-10 MONITOR

SPECIFICATIONS

DISPLAY		DIMENSIONS (W x D x H)	
Panel Size	23.8"	Size Packed (mm)	422 x 622 x 190
Panel Type	In-Plane Switching	(inches)	16.61" x 24.48" x 7.48"
Backlight	WLED	Size Unpacked with Stand	
Resolution	1920 x 1080	Lowest Position (mm)	540.2 x 261.75 x 373.4
Aspect Ratio	16:9	(inches)	21.26" x 10.3" x 14.7"
Anti-Glare	Yes	Highest Position (mm)	540.2 x 261.75 x 483.4
Screen Dimensions (W x H) (mm)	527.04 (H) x 296.46 (V)	(inches)	21.26" x 10.3" x 19"
Maximum Brightness (Typical)	250 cd/m ²	Size Unpacked without Stand (Monitor Head Only) (mm)	540.2 x 46.45 x 325.98
Viewing Angle (H/V at CR 10:1)	178°/178°	(inches)	21.26" x 1.82" x 12.83"
Contrast Ratio (Typical)	1000:1	Distance from Table to Panel	
Dynamic Contrast Ratio (Typical)	3M:1	Lowest Pixel at Bottom of Screen (mm / inches)	70.37 / 2.77"
Pixel Pitch (mm)	0.2745 (H) x 0.2745 (V)	Highest Pixel at Top of Screen (mm / inches)	476.8 / 18.77"
Dot/Pixel Per Inch (DPI/PPI)	92	Stand Base Footprint Area (mm / inches)	250 x 250 / 9.84" x 9.84"
Color Gamut (CIE 1931)	72% NTSC	Weight	
Response Time (gray to gray)	4 ms (Extreme mode) 6 ms (Normal mode)	Packed	Starting at 16.39 lbs (7.45 kg)
		Unpacked	Starting at 11.33 lbs (5.15 kg)
		Monitor Head Only	Starting at 7.26 lbs (3.3 kg)
		Full Container Load (40' STD / 20' STD)	1140 / 540 Units
POWER CONSUMPTION		SPECIAL FEATURES	
Typical	19 W	Thin Client Support (Tiny)	Yes
Maximum	116 W		(by Tiny Clamp Bracket Kit + VESA Mount)
Sleep-Mode	<0.5 W		
Switch Off-Mode	<0.5 W		
Power Supply	Internal		
Power Voltage	90 VAC – 264 VAC		
Voltage Dynamic Frequency	47 Hz – 63 Hz		
CONNECTIVITY		WHAT'S IN THE BOX	
Video Input Signals	HDMI 1.4 + DisplayPort 1.2a + USB Type-C	Monitor with Stand	
Video Cables Supplied	USB Type-C to Type-C Cable	1 x Power Cable	
Video Cable Length	1.8 m	1 x USB Type-C™ to Type-C™ Cable	
USB Hub	Yes 1 x USB 3.0 ¹ (Upstream, by USB Type-C) 4 x USB 3.0 ¹ (Downstream, incl. 1BC)	Quick Setup Guide	
Audio-Out	Yes (3.5 mm)		
MECHANICAL		CERTIFICATIONS	
Tilt Angle (Front / Back)	-5° / 30°	EPEAT	Silver
Swivel Angle (Left / Right)	+/-45°	ENERGY STAR Rating	8.0
Lift Range (mm)	110	ULE	Gold
Pivot	+/-90°	TCO	TCO 7.0 / TCO Edge 2.0
VESA Mount (mm x mm)	Yes (100 x 100)	RoHS (EU 2002/95/EC)	Yes
Kensington Lock Slot	Yes	Windows Certification	Windows 7 / Windows 10
Cable Management	Yes	China Energy Efficiency Standard	Tier 2
Bezel Color	Raven Black	TÜV Eye Comfort Certification	Yes
Bezel Width			
Top (mm / inches)	2 / 0.08"		
Sides (mm / inches)	2 / 0.08"		

¹ Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen 1; 10 Gbit/s for USB 3.1 Gen 2 & 20 Gbit/s for USB 3.2.



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ThinkVision T24m-20

DISPLAY

Panel Size

23.8-inch

Screen Dimensions

535.1 mm x 313.1 mm

Panel Type

3-side NearEdgeless
In-Plane Switching

Active Area

527.0 mm x 296.5 mm

Backlight

WLED

Aspect Ratio

16:9

Resolution

1920 x 1080

Pixel Pitch

0.2745 mm x 0.2745 mm

Dot/Pixel Per Inch (DPI/PPI)

93

Viewing angle (H x V @ CR 10:1)

178° / 178°

Response Time

4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate

60 Hz

Brightness (typical)

250 cd/m²

Contrast Ratio (typical)

1000:1

Dynamic Contrast Ratio (typical)

3M:1

Color Gamut

72% NTSC (CIE 1931)

Color Support (typical)

16.7 Million

Color Depth

8-bit (6+FRC)

Anti-glare

Yes

CONNECTIVITY

Video Signal

1 x USB Type-C¹ Gen1
(DP1.2 Alt Mode)
1 x HDMI 1.4
1 x DP 1.2
1 x DP Out

Audio Signal

1 x Audio Out (3.5mm)

USB Hub

Yes

Ethernet

Yes (10M/100M/1000M)

USB Upstream

1 x USB3.2 Gen1
(1 by USB Type-C¹)

USB Downstream

4 x USB3.2 Gen1
(1 x BC1.2)

SPECIAL FEATURES

Software

Lenovo ThinkColour³ (Lenovo
Display Control Center)

POWER

Power Consumption (Typ./Max)

22W / 140W

Power Consumption Sleep/Off Mode

< 0.5W⁴

Power Consumption Switch-Off Mode

< 0.3W

Energystar Power Consumption (Pon/E_{TEC})

15W / 49kWh

Power Supply

Internal

USB Type-C¹ (DP Alt Mode) power delivery

Up to 90W⁵

Smart Power²

Yes

Voltage Required

AC 90 to 264 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)

-5° / 35°

Swivel Angle (left/right)

-45° / 45°

Lift (Max range)

150 mm

Pivot

-90° / 90°

VESA Mount Capability

Yes (100 x 100 mm)

ThinkCentre M Series Tiny support

Yes, by Tiny monitor clamp II
(PN: 4XHQZ42451)
& Tiny VESA mount II
(PN: 4XFON03161)

ThinkCentre M Series Nano support

Yes, by Nano monitor clamp II
(PN: 4XHQZ42451)
& Nano VESA mount
(PN: 4XFOV81630)

Kensington Lock Slot

Yes

Cable Management

Yes

Bezel Color

Raven Black

Bezel Width(side)

2.0 mm

Bezel Width(top/bottom)

2.0 / 22.0 mm

DIMENSION

Size Packed

(D x H x W, mm/inch)
161.0 x 480.0 x 604.0 mm
6.34 X 18.89 X 23.78 inches

Size Unpacked w/stand (D x H x W)(mm/inch) (Lowest position)

204.9 x 417.1 x 539.8 mm
8.09 x 16.42 x 21.25 inches

Size Unpacked w/stand (D x H x W)(mm/inch) (Highest position)

204.9 x 567.1 x 539.8 mm
8.09 x 22.33 x 21.25 inches

Size Unpacked w/o stand (Head Only) (D x H x W) (mm/inch)

44.4 x 325.9 x 539.8 mm
1.75 x 12.83 x 21.25 inches

Weight Packed (kg/lb)

8.9 kg / 19.7 lbs.

Weight Unpacked (kg/lb)

6.1 kg / 13.5 lbs.

Weight (Monitor Head Only) (kg/lb)

3.6 kg / 8.0 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8m)
1 x DP cable (1.8m) for US, Canada
1 x USB Type-C to Type-A cable (1.8m)
for US, Canada
1 x USB Type-C to Type-C cable (1.8m)
Quick setup guide

CERTIFICATION

ENERGY STAR Certification

Yes

CCC

Yes

TCO

9.0

EPEAT

Gold

EU(2011/65/EC)

Yes

Windows Certification

Windows 7, Windows 10

China Energy Efficiency Standard

Tier 1

TÜV Rheinland Eye Comfort

Yes

TÜV Rheinland Flicker Free

Yes

TÜV Low Blue Light (Hardware Solution)

Yes

Eyesafe Display Certification

Yes



¹ USB Type-C* and USB-C* are registered trademarks of USB Implementers Forum. ² The Smart Power function intelligently detects overall power consumption and dynamically manages the power delivery to each device. Up to 90W power delivery to compatible devices by USB Type-C, typical power delivery is 65W. ³ This software can only be used with Windows 10. ⁴ For DP/HDMI mode. ⁵ Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

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Specifications may vary depending upon region.

ThinkVision T24m-29

DISPLAY

Panel Size
23.8-inch

Screen Dimensions
535.1 mm x 313.1 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
527.0 mm x 296.5 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.275 mm x 0.275 mm

Dot/Pixel Per Inch (DPI/PPI)
93

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode),
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (Typical)
250 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut (Coverage Ratio)
72% NTSC (CIE 1931)

Color Support (Typical)
16.7 Million

Color Depth
8-bit (6+FRC)

Anti-Glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C¹ Gen1 (DP1.2 Alt Mode)
1 x HDMI 1.4
1 x DP 1.2
1 x DP Out

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

Ethernet
Yes (10M/100M/1000M)

USB Upstream
1 x USB3.2 Gen1² (1 by USB Type-C¹)

USB Downstream
4 x USB3.2 Gen1² (1 x BC1.2)

MULTIMEDIA

Integrated Speakers
Yes (2 x 1W)

SPECIAL FEATURES

Software
Lenovo ThinkColour³
(Lenovo Display Control Center)

POWER

Power Consumption (Typ. / Max.)
22W / 140W

Power Consumption Sleep/Off Mode
< 0.5W⁴

Power Consumption Switch-Off Mode
< 0.3W

ENERGY STAR Power Consumption (Pon/E_{TEC})
15W / 49kWh

Power Supply
Internal

USB Type-C¹ (DP Alt Mode)
Power Delivery
Up to 90W⁵

Smart Power⁶
Yes

Voltage Required
AC 90 to 264 V (50-60 Hz)

MECHANICAL

Tilt Angle (Front / Back)
-5° / 35°

Swivel Angle (Left / Right)
-45° / 45°

Lift Range
150 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny Support
Yes, by Tiny Monitor Clamp II (PN: 4XHOZ42451)⁷ & Tiny VESA Mount II (PN: 4XFON03161)⁷

ThinkCentre M Series Nano Support
Yes, by Nano Monitor Clamp II (PN: 4XHOZ42451)⁷ & Nano VESA Mount (PN: 4XFOV81630)⁷

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
2.0 mm

Bezel Width (Top / Bottom)
2.0 / 22.0 mm

DIMENSION

Size Packed (D x H x W) (mm/inch)
161.0 x 480.0 x 604.0 mm
6.34 X 18.89 X 23.78 inches

Size Unpacked w/ Stand (Lowest Position) (D x H x W) (mm/inch)
204.9 x 417.1 x 539.8 mm
8.09 x 16.42 x 21.25 inches

Size Unpacked w/ Stand (Highest Position) (D x H x W) (mm/inch)
204.9 x 567.1 x 539.8 mm
8.09 x 22.33 x 21.25 inches

Size Unpacked w/o Stand (Head Only) (D x H x W) (mm/inch)
44.4 x 325.9 x 539.8 mm
1.75 x 12.83 x 21.25 inches

Weight Packed (kg / lb)
8.9 kg / 19.7 lbs.

Weight Unpacked (kg / lb)
6.1 kg / 13.5 lbs.

Weight (Monitor Head Only) (kg / lb)
3.6 kg / 8.0 lbs.

WHAT'S IN THE BOX

Monitor with Stand
Yes

Power Cable (Cable Length)
1 x Power Cable (1.8m)

USB Cable (Cable Length)
1 x USB Type-C to Type-C Cable (1.8m)

Quick Setup Guide
Yes

CERTIFICATION

ENERGY STAR Certification
Yes

TCO
9.0

EPEAT
Gold

RoHS (EU 2011/65/EC)
Yes

Windows Certification
Windows 10, Windows 11

TÜV Rheinland Eye Comfort
Yes

TÜV Rheinland Flicker Free
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



eyesafe

¹ USB Type-C® and USB-C® are registered trademarks of USB Implementers Forum. | ² Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2. | ³ This software can only be used with Windows 10 and Windows 11. | ⁴ For DP/HDMI mode. | ⁵ Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting. | ⁶ The Smart Power function intelligently detects overall power consumption and dynamically manages the power delivery to each device. Up to 90W power delivery to compatible devices by USB Type-C, typical power delivery is 65W. | ⁷ Sold separately.

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Specifications may vary depending upon region.

ThinkVision T24t-20

DISPLAY

Panel Size
23.8-inch

Screen Dimensions
535.12 mm x 313.12 mm

Panel Type
3-side NearEdgeless

Active Area
527.04 mm x 296.46 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.2745 mm x 0.2745 mm

Dot/Pixel Per Inch (DPI/PPI)
93

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (typical)
300 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB

Color Support (typical)
16.7 Million

Touch
Yes (10-point Projected Capacitive Touch)

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C Gen 1 (DP 1.2 Alt Mode)
4 x USB Gen 1 (1 x BC1.2)
1 x HDMI 1.4
1 x DP 1.2

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB 3.2 Gen 1 (1 by USB Type-C)

USB Downstream
4 x USB 3.2 Gen1 (1 x BC1.2)

SPECIAL FEATURE

Software
Lenovo ThinkColour
(Lenovo Display Control Center)⁴

POWER

Power Consumption (typical/max)
25W/150W

Power Consumption Sleep/O Mode
< 0.5W

Power Consumption Switch-o Mode
< 0.3W

Energystar Power Consumption (P_{on}/E_{TEC})
17W / 56 kWh

Power Supply
Internal

USB Type-C Power Delivery (W)
up to 90W³

Smart Power
Yes

Voltage Required
AC 100 to 240 V (50—60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 70°

Lift (Max range)
90 mm

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 / 22.2 mm

DIMENSIONS

Size Packed (D x H x W, mm/inch)
622.0 x 172.0 x 421.0 mm
24.49 x 6.77 x 16.57 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
244.1 x 340.5 x 539.8 mm
9.61 x 13.41 x 21.25 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
244.1 x 430.5 x 539.8 mm
9.61 x 16.95 x 21.25 inches

Size Unpacked w/o stand (Head Only) (D x H x W)(mm/inch)
44.1 x 326.5 x 539.8 mm
1.74 x 12.85 x 21.25 inches

Weight Packed (kg/lbs.)
8.31 kg/18.32 lbs.

Weight Unpacked (kg/lbs.)
5.85 kg/12.90 lbs.

Weight (Monitor Head Only) (kg/lbs.)
3.79 kg/8.36 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m) for US, Canada
1 x USB Type-C to A cable (1.8 m) for US, Canada
1 x USB Type-C to C cable
Quick setup guide

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



¹ Capable to work with selected compatible Android and Chrome system. ²USB Type-C® and USB-C® are registered trademarks of USB Implementers Forum. ³Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration and may decline with downstream USB ports connected or higher brightness setting. ⁴This software can only be used with Windows 10. Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.1 Gen 1; 10 Gbit/s for USB 3.1 Gen 2 & 20 Gbit/s for USB 3.2.

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ThinkVision T24v-20

DISPLAY

Panel Size
23.8-inch

Screen Dimensions
527.04 mm x 296.46 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.2745 x 0.2745 mm

Dot/Pixel Per Inch (DPI/PPI)
93

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (typical)
250 cd/m²

Brightness (peak)
250 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
72% NTSC (CIE 1931)

Color Support (typical)
16.7 Million

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2
1 x VGA

Audio Signal
1 x Audio Combo (3.5 mm; in/out)

USB Hub
Yes

USB Upstream
1 X USB 3.2 Gen1

USB Downstream
2 x USB 3.2 Gen1 (1 x BC1.2)

MULTI-MEDIA

Integrated Webcam
Yes (1080p, IRRGB camera)

Integrated Microphone
Yes

Integrated Speakers
Yes (2 x 3W)

SPECIAL FEATURES

Software
Lenovo ThinkColour (Lenovo Display Control Center)¹

POWER

Power Consumption (Typ./Max)
13W / 44W

Power Consumption Sleep/O Mode
< 0.5W

Power Consumption Switch-o Mode
< 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
11.36W / 35.68kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max range)
150 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny support
Yes (sold separately)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
1.8 mm

Bezel Width (top/bottom)
1.8 / 22.0 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
418.0 x 187.0 x 644.0 mm
16.46 x 7.36 x 25.35 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
205.0 x 434.0 x 539.8 mm
8.07 x 17.0 x 21.2 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
205.0 x 584.0 x 539.8 mm
8.07 x 23.0 x 21.2 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
48.35 x 344.3 x 539.8 mm
1.9 x 13.55 x 21.25 inches

Min. Distance from Table to Panel (lowest pixel at bottom of screen, mm)
114.1 mm

Max. Distance from Table to Panel (highest pixel at top of screen, mm)
560.56 mm

Weight Packed (kg/lbs.)
7.86kg / 17.33 lbs.

Weight Unpacked (kg/lbs.)
7.86kg / 17.33 lbs.

Weight (monitor head only) (kg/lbs.)
3.48kg / 7.67 lbs.

Full Container Load (40' STD / 20' STD)
1012/440 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m)
1 x USB Type-A to Type-B cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



¹This software can only be used with Windows 10

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2. Enhanced Sign-In Security is not supported.

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Specifications may vary depending upon region.

ThinkVision T25d-10

DISPLAY

Panel Size
25.0 inches

Screen Dimensions (H x V)
533.45 x 338.76mm

Panel Type
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:10

Resolution
1920 x 1200 pixels

Refresh Rate
60Hz

Pixel Pitch (H x V)
0.2789 x 0.2823mm

Viewing Angle (H x V)
178°/178°

Response Time (gray to gray)
4ms (extreme mode)
6ms (normal mode)

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Brightness (typical)
300 cd/m2

Color Gamut sRGB (CIE 1931)
99%

Color Support
16.7M

CONNECTIVITY

Video Input Signals
HDMI 1.4 + DP 1.2 + VGA

Video Cables Supplied
DP + HDMI*

Video Cable Length
1.8m

USB Hub
Yes

USB Upstream
1 x USB 3.1 Gen1

USB Downstream
4 x USB 3.1 Gen1 (with 1 BC)

Audio Out
Yes (3.5mm)

POWER

Power Consumption (Typical/Max)
25W/66W

Power Consumption Sleep/O Mode
<0.5W

Power Consumption Switch O -Mode
<0.3W

Power Supply
Internal

ENERGY STAR (P_{on})
16.54W

ENERGY STAR (E_{tec})
52.06kWh

Voltage Required
100-240VAC (50/60Hz)

DIMENSIONS

Size Packed (D x H x W)
706 x 450 x 160mm/
27.79 x 17.72 x 6.30 inches

Size Unpacked w/stand (D x H x W)(mm/inch) (Lowest position)
260.4 x 399.5 x 548.7mm/
10.25 x 15.73 x 21.60 inches

Size Unpacked w/stand (D x H x W)(mm/inch) (Highest position)
260.4 x 509.5 x 548.7mm/
10.25 x 20.06 x 21.60 inches

Size Unpacked w/o stand (D x H x W)(mm/inch) (Head Only)
43.0 x 369.1 x 548.7mm/
1.69 x 14.53 x 21.60 inches

Weight Packed
7.8kg/17.20lbs.

Weight Unpacked
5.5kg/12.13lbs.

Weight (Monitor Head Only)
3.58kg/7.89lbs.

SPECIAL FEATURES

Anti-glare
Yes

Optional Soundbar Support
Yes

ThinkCentre Tiny Support
Yes

MECHANICAL

Tilt Angle (front/back)
-5°/30°

Swivel Angle (left/right)
+/-45°

Lift
Yes (110mm)

Pivot
+/-90°

VESA Mount Capability
Yes (100 x 100mm)

Kensington Lock Slot
Yes

Bezel Width (Side)
2.0mm

Bezel Width (top/bottom)
2.0/22.2mm

WHAT'S IN THE BOX

Monitor with stand
1 x Power Cable
1 x USB 3.1 Gen1 Cable
1 x HDMI Cable*
1 x DP Cable
Quick Setup Guide

CERTIFICATIONS

ENERGY STAR Rating
8.0

EU RoHS
Yes

CCC
Yes

TCO
TCO 8.0/TCO Edge 2.0

EPEAT
Silver

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 2

TÜV Eye Comfort
Yes



*For NA and LA only

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

Lenovo

Specifications

DISPLAY

Panel Size
27-inch

Screen Dimensions
608.80 mm x 354.10 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
596.74 mm x 335.66 mm

Backlight
Mini-LED
(with 1152 zones local dimming)

Aspect Ratio
16:9

Resolution
3840 x 2160

Pixel Pitch
0.1554 mm x 0.1554 mm

Dot/Pixel Per Inch(DPI/PPI)
163

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (typical)
620 cd/m²

Brightness (peak)
1200 cd/m²

Contrast Ratio (typical)
1100:1
1M:1(HDR)

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99.5% DCI-P3,
100% sRGB,
100% BT.709,
73% BT.2020

Color Depth
10-bit (8+FRC)

Processor LUT
14-bit

Color Support (typical)
1.07 Billion

HDR Compliance
Dolby Vision® Approved
DisplayHDR™ 1000
HDR10
HLG

Local Dimming
1152 zones

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C Gen2 (DP1.4 Alt Mode)
3 x HDMI 2.0
1 x DP 1.4
1 x DP 1.4 (Out)³

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
2 x USB3.2 Gen1 (1 by USB Type-C, 1 by USB Type-B)
USB Downstream
4 x USB3.2 Gen1 (1x BC1.2)

MULTI-MEDIA

Optional Soundbar Support
Yes (PN 0A36190)

SPECIAL FEATURES

Factory Calibration
Yes (avg. ΔE<1)

PIP/PBP
Yes

KVM Switch
Yes

Software
Lenovo ThinkColour²
(Lenovo Display Control Center)

POWER

Power Consumption (Typ./Max)
70W / 270W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-Off Mode
< 0.3W

Power Supply
Internal

USB Type-C Power Delivery(W)
Up to 100W¹

Smart Power
Yes

Voltage Required
AC 100 to 240 V (47-63 Hz)

MECHANICAL

Tilt Angle (front/back)
-5°/ 35°

Swivel Angle (left/right)
+45°/ -45°

Lift (max range)
135 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny support
Yes, by Tiny/Nano monitor clamp II (PN: 4XH0Z42451) & Tiny VESA mount II (PN: 4XFON03161)

ThinkCentre M Series Nano support
Yes, by Tiny/Nano monitor clamp II (PN: 4XH0Z42451) & Tiny VESA mount II (PN: 4XFON03161)

Kensington Lock Slot
Yes

Headphone Hook
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width(side)
2.0 mm

Bezel Width(top/bottom)
2.0 / 16.0 mm

WHAT' IN THE BOX

Monitor with stand
1 x Power cable (1.8m)
1 x DP cable (1.8m)
1 x HDMI cable (1.8m)
1 x USB Type-C to Type-C cable (1.5m)
1 x USB Type-A to Type-B cable (1.8m)
Shading Hood
Factory Calibration Report
Quick Setup Guide

DIMENSION

Size Packed (D x H x W, mm/inch)
758 x 493 x 200 mm
29.84 x 19.41 x 7.87 inches

Size Unpacked w/stand (D x H x W)(mm/inch) (Lowest position)
234.1 x 458.8 x 613.1 mm
9.22 x 18.06 x 24.14 inches

Size Unpacked w/stand (D x H x W)(mm/inch) (Highest position)
234.1 x 593.8 x 613.1 mm
9.22 x 23.38 x 24.14 inches

Size Unpacked w/o stand (Head Only) (D x H x W)(mm/inch)
53.7 x 359.7 x 613.1 mm
2.11 x 14.16 x 24.14 inches

Weight Packed (kg/lb)
13.5kg / 29.76 lbs.

Weight Unpacked (kg/lb)
10.8kg / 23.81 lbs.

Weight (Monitor Head Only) (kg/lb)
6.55kg / 14.44 lbs.

CERTIFICATION

CCC
Yes

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1 (professional monitor)

TÜV Rheinland Low Blue Light
Yes



¹ Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.
² Compatible with Windows 10 only
³ For USB Type-C input only
⁴ USB Type-C® and USB-C® are registered trademarks of USB Implementers Forum.

ThinkVision E27q-20

DISPLAY

Panel Size
27-inch

Screen Dimensions
608.8 mm x 355.3 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
596.7 mm x 335.7 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2331 mm x 0.2331 mm

Dot/Pixel Per Inch (DPI/PPI)
108

Viewing angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
75Hz

Brightness (typical)
350 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB

Color Support (typical)
16.7 Million

Color Depth
8-bit

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2

Audio Signal
1 x Audio Out (3.5 mm)

MULTI-MEDIA

Integrated Speakers
Yes (2 x 2W)

POWER

Power Consumption (typical/max)
30W / 40W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-off Mode
< 0.3W

ENERGY STAR Power Consumption (Pon/E_{TEC})
21W / 65kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 22°

Swivel Angle (left/right)
360°

Lift Range
195 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre Tiny Support*
Yes, by Sandwich Mounting Kit
(PN: 4XHON04098)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

DIMENSION

Size Packed (D x H x W, mm/inch)
460.0 x 186.0 x 730.0 mm
18.11 x 7.32 x 28.74 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (Lowest position)
220.0 x 379.0 x 613.6 mm
8.66 x 14.92 x 24.16 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (Highest position)
220.0 x 574.0 x 613.6 mm
8.66 x 22.60 x 24.16 inches

Size Unpacked w/o stand (Head Only) (D x H x W) (mm/inch)
46.2 x 367.6 x 613.6 mm
1.82 x 14.47 x 24.16 inches

Weight Packed (kg/lb)
9.0 kg / 19.9 lbs.

Weight Unpacked (kg/lb)
6.6 kg / 14.6 lbs.

Weight (Monitor Head Only) (kg/lb)
4.5 kg / 9.8 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x HDMI cable (1.8m)
1 x Power cable (1.8m)
Quick setup guide

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Silver

RoHS (2011/65/EU)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

TÜV Rheinland Flicker Free
Yes

Eyesafe Certification
Yes



* Optional support.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision E28u-20 Monitor

DISPLAY

Panel Size
28-inch

Screen Dimensions
631.7 mm x 359.6 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
620.9 mm x 341.3 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
3840 x 2160

Pixel Pitch
0.160 mm x 0.160 mm

Dot/Pixel Per Inch (DPI/PPi)
157

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode),
6ms (Normal Mode), 14ms (Off Mode)

Refresh Rate
60 Hz

Brightness (Typical)
300 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut (Coverage Ratio)
99% sRGB, 90% DCI-P3

Color Support (Typical)
1.07 Billion

Color Depth
10-bit

HDR Compliance
Yes (HDR10)

Anti-Glare
Yes

CONNECTIVITY

Video Signal
2 x HDMI 2.0
1 x DP 1.4

Audio Signal
2 x Audio Out (3.5 mm)

MULTIMEDIA

Integrated Speakers
Yes (2 x 2W)

SPECIAL FEATURES

Natural Low Blue Light
Yes

POWER

Power Consumption (Typ. / Max.)
30W / 50W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-Off Mode
< 0.3W

ENERGY STAR Power Consumption (Pon / E_{TEC})
25.25W / 78.48kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (Front / Back)
-5° / 22°

Swivel Angle (Left / Right)
+360° / -360°

Lift Range
200 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny Support
Yes, by Tiny VESA Mount II (PN: 4XFON03161)*

ThinkCentre M Series Nano Support
Yes, by Nano VESA Mount (PN: 4XFOV81630)*

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
2.0 mm

Bezel Width (Top / Bottom)
2.0 / 22.8 mm

DIMENSION

Size Packed (D x H x W) (mm/inch)
170.0 x 489.0 x 744.0 mm
6.69 x 19.25 x 29.29 inches

Size Unpacked w/ Stand (Lowest Position) (D x H x W) (mm/inch)
220.0 x 380.6 x 636.9 mm
8.66 x 14.98 x 25.07 inches

Size Unpacked w/ Stand (Highest Position) (D x H x W) (mm/inch)
220.0 x 580.6 x 636.9 mm
8.66 x 22.86 x 25.07 inches

Size Unpacked w/o Stand (Head Only) (D x H x W) (mm/inch)
48.9 x 373.7 x 636.9 mm
1.93 x 14.71 x 25.07 inches

Weight Packed (kg / lb)
9.2 kg / 20.3 lbs.

Weight Unpacked (kg / lb)
6.8 kg / 15.0 lbs.

Weight (Monitor Head Only) (kg / lb)
4.6 kg / 10.1 lbs.

WHAT'S IN THE BOX

Monitor with Stand
Yes

Power Cable (Cable Length)
1 x Power Cable (1.8m)

HDMI Cable (Cable Length)
1 x HDMI 2.0 Cable (1.8m)

Quick Setup Guide
Yes

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
9.0

TCO Edge
2.0

EPEAT
Silver

Volatile Organic Compound Certification
Yes (GREENGUARD)

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10, Windows 11

China Energy Efficiency Standard
Tier 2

TÜV Rheinland Eye Comfort
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



* Sold separately.

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Specifications may vary depending upon region.

ThinkVision E29w-20

DISPLAY

Panel Size
29-inch

Screen Dimensions
683.6 mm x 299.1 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
672.8 mm x 283.8 mm

Backlight
WLED

Aspect Ratio
21:9

Resolution
2560 x 1080

Pixel Pitch
0.2628 mm x 0.2628 mm

Pixel Per Inch (DPI/PPI)
96

Viewing angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
90 Hz

Brightness (typical)
300 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB

Color Support (typical)
16.7 Million

Color Depth
8-bit (Hi-FRC)

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2

Audio Signal
1 x Audio Out (3.5mm)

MULTI-MEDIA

Integrated Speakers
Yes (2 x 3W)

Optional Soundbar Support
Yes (PN number: OA36190)

SPECIAL FEATURES

Software
Lenovo ThinkColour²
(Lenovo Display Control Center)

Sync Technology
AMD FreeSync™¹

POWER

Power Consumption (typical/max)
36W / 45W

Power Consumption Sleep/O Mode
< 0.3W

Power Consumption Switch-o Mode
< 0.3W

ENERGY STAR Power Consumption (Pon/E_{TEC})
13W / 40kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 22°

Swivel Angle (left/right)
360°

Lift (Max range)
155 mm

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
1.8 mm

Bezel Width (top / bottom)
1.8 / 26.4 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
796.0 x 155.0 x 395.0 mm
31.34 x 6.11 x 15.56 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (Lowest Position)
220.0 x 331.1 x 688.4 mm
8.66 x 13.04 x 27.10 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (Highest Position)
220.0 x 508.1 x 688.4 mm
8.66 x 20.00 x 27.10 inches

Size Unpacked w/o Stand (D x H x W, mm/inch) (Head Only)
47.5 x 320.0 x 688.4 mm
1.87 x 12.60 x 27.10 inches

Weight Packed (kg/lb)
8.5 kg / 18.7 lbs.

Weight Unpacked (kg/lb)
6.6 kg / 14.6 lbs.

Weight (Monitor Head Only) (kg/lb)
4.4 kg / 9.7 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8m)
1 x HDMI cable (1.8m)
Quick setup guide

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



¹AMD FreeSync works only with AMD Radeon series graphic card
²This software can only be used with Windows 10

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

ThinkVision P27h-20 Monitor

Specifications

DISPLAY

Panel Size
27-inch

Screen Dimensions
596.74 mm x 335.66 mm

Panel Type
4-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2331 x 0.2331 mm

Dot/Pixel Per Inch (DPI/PPI)
109

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (extreme mode)
6ms (normal mode)

Refresh Rate
60 Hz

Brightness (typical)
350 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB,
99% BT.709,
85% DCI-P3

Color Support (typical)
16.7 Million

Processor LUT
8-bit

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C² Gen1 (DP1.2 Alt Mode)
1 x HDMI 1.4
1 x DP 1.2
1 x DP 1.2 (Out)

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

Ethernet
Yes (10M/100M/1000M)

USB Upstream
1 x USB 3.1 Gen1 (by USB Type-C Gen1)

USB Downstream
4 x USB 3.1 Gen1 (1 x BC1.2)

MULTI-MEDIA

Integrated Speakers
Yes (2 x 1W)

Optional Soundbar Support
Yes (PN 0A36190)

SPECIAL FEATURES

Factory Calibration
Yes (Avg. Delta E<2)

Software
Lenovo ThinkColour (Lenovo Display Control Center)⁴

POWER

Power Consumption (typ./max.)
27W / 150W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-off Mode
< 0.3W

ENERGY STAR Power Consumption
(P_{on}/E_{TEC})
19W / 61kWh

Power Supply
Internal

USB Type-C Power Delivery (W)
up to 90 W³

Smart Power¹
Yes

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max range)
135 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 / 2.0 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
182 x 463 x 722 mm
7.17 x 18.23 x 28.43 inches

Size Unpacked w/ Stand
(D x H x W, mm/inch) (lowest position)
208 x 441.5 x 613.8 mm
8.19 x 17.38 x 27.17 inches

Size Unpacked w/ Stand
(D x H x W, mm/inch) (highest position)
208 x 576.5 x 613.8 mm
8.19 x 22.70 x 27.17 inches

Size Unpacked w/o Stand (head only)
(D x H x W, mm/inch)
46.9 x 353.8 x 613.8 mm
1.85 x 13.92 x 27.17 inches

Min. Distance from Table to Panel
(lowest pixel at bottom of screen, mm)
97.3 mm

Max. Distance from Table to Panel
(highest pixel at top of screen, mm)
567.9 mm

Weight Packed (kg/lbs.)
9.55 kg / 21.01 lbs.

Weight Unpacked (kg/lbs.)
7.35 kg / 16.17 lbs.

Weight (monitor head only) (kg/lbs.)
4.87 kg / 10.71 lbs.

Full Container Load (40' STD / 20' STD)
792 / 352 units

WHAT’S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m) (NA only)
1 x USB Type-C to Type-C cable (1.8 m)
1 x USB Type-C to Type-A cable (1.8 m) (NA only)
Factory calibration report
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Silver

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



¹The Smart Power function intelligently detects overall power consumption and dynamically manages the power delivery to each device.
²USB Type-C* and USB-C* are registered trademarks of USB Implementers Forum.
³Listed as maximum capacity of power delivery. Actual capacity may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.
⁴This software can only be used with Windows 10

ThinkVision P27h-28

DISPLAY

Panel Size
27-inch

Screen Dimensions (W x H, mm)
608.78 mm x 355.12 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
596.74 mm x 335.66 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2331 mm x 0.2331 mm

Dot/Pixel Per Inch (DPI/PPI)
109

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (Typical)
350 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut
99% sRGB
99% BT.709
85% DCI-P3

Color Support (Typical)
16.7 Million

Processor LUT
8-bit

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C Gen1 (DP1.2 Alt Mode)¹
1 x HDMI 1.4
1 x DP 1.2
1 x DP Out

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

Ethernet
Yes (10M/100M/1000M)

USB Upstream
1 x USB3.2 Gen1² (by USB Type-C)¹

USB Downstream
4 x USB3.2 Gen1² (1 x BC1.2)

MULTI-MEDIA

Integrated Speakers
Yes (2 x 1W)

Optional Soundbar Support
Yes (PN: OA36190)

SPECIAL FEATURES

Factory Calibration
Yes (Avg. Delta E<2)

POWER

Power Consumption (Typ. / Max.)
27W / 150W

Power Consumption Sleep/Off Mode
<0.5W

Power Consumption Switch-off Mode
<0.3W

ENERGY STAR Power Consumption (Pon/ETEC)
14.9W / 48.7kWh

Power Supply
Internal

USB Type-C Power Delivery (W)³
Up to 90W⁴

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (Front / Back)
-5° / 35°

Swivel Angle (Left / Right)
+45° / -45°

Lift (Max. Range)
135 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
2.0 mm

Bezel Width (Top / Bottom)
2.0 / 23.9 mm

DIMENSIONS

Size Packed (D x H x W) (mm/inch)
463.0 x 182.0 x 722.0 mm
18.23 x 7.17 x 28.43 inches

Size Unpacked w/ Stand (D x H x W) (mm/inch) (Lowest Position)
208.0 x 425.9 x 614.0 mm
8.19 x 16.77 x 24.17 inches

Size Unpacked w/ Stand (D x H x W) (mm/inch) (Highest Position)
208.0 x 563.9 x 614.0 mm
8.19 x 22.20 x 24.17 inches

Size Unpacked w/o Stand (Head Only) (D x H x W) (mm/inch)
47.7 x 369.1 x 614.0 mm
1.88 x 14.53 x 24.17 inches

Weight Packed (kg/lb)
9.51 kg / 20.92 lbs.

Weight Unpacked (kg/lb)
7.43 kg / 16.38 lbs.

Weight (Monitor Head Only) (kg/lb)
4.99 kg / 11.00 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8m)
1 x DP cable (1.8m) (NA & Brazil only)
1 x USB Type-C to Type-C cable (1.8m)
1 x USB Type-C to Type-A cable (1.8m) (NA & Brazil only)
Factory calibration report
Quick setup guide

CERTIFICATION

ENERGY STAR Certification
8.0

CCC
Yes

TCO
9.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10, Windows 11

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



¹ USB Type-C* and USB-C* are registered trademarks of USB Implementers Forum.

² Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

³ Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

⁴ Up to 90W power delivery to compatible devices by USB Type-C.

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Specifications may vary depending upon region.

ThinkVision P27h-30

DISPLAY

Panel Size
27-inch

Screen Dimensions (W x H, mm)
348.6 mm x 608.6 mm

Panel Type
4-side NearEdgeless
In-Plane Switching

Active Area
596.7 mm x 335.7 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2331 mm x 0.2331 mm

Dot/Pixel Per Inch (DPI/PPI)
109

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode),
6ms (Normal Mode),
14ms (Off Mode)

Refresh Rate
60 Hz

Brightness (Typical)
350 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut
95% DCI-P3, 99% sRGB, 99% BT.709

Color Support (Typical)
1.07 Billion

Anti-Glare
Yes

HDR10 (Decoding)
Yes

CONNECTIVITY

Video Signal
1 x USB 3.2 Type-C¹ Gen2 (DP 1.4 Alt Mode)
1 x HDMI 2.0
1 x DP 1.4
1 x DP 1.4 Out

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

Ethernet
Yes (10M/100M/1000M)

USB Upstream
2 x USB3.2 Gen1² (1 by USB Type-C¹,
1 by USB Type-B)

USB Downstream
5 x USB3.2 Gen1² (1 x USB Type-C¹, 15W,
4 x USB Type-A)

SPECIAL FEATURES

Factory Calibration
Yes (Avg. Delta E<2)

Software
Yes (ThinkColour)

Modular Camera / Speaker Support
Yes (optional support³)

POWER

Power Supply
Internal

USB Type-C Power Delivery (W)⁴
Up to 100W

Smart Power
Yes

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (Front / Back)
-5° / 23.5°

Swivel Angle (Left / Right)
+45° / -45°

Lift (Max. Range)
155 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
2.0 mm

Bezel Width (Top / Bottom)
2.0 / 2.0 mm

WHAT'S IN THE BOX

Monitor with Stand
Yes

Power Cable
1 x Power Cable

DP Cable (Cable Length)
DP 1.4 Cable (1.8m, for US & Canada)

USB Cable (Cable Length)
1 x USB-C¹ Gen2 (1m)
1 x USB-A to USB-B (1.8m)

Factory Calibration Report
Yes

Quick Setup Guide
Yes

CERTIFICATION

ENERGY STAR Certification
8.0

CCC
Yes

TCO
9.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 10, Windows 11

TÜV Rheinland Eye Safe
Yes

TÜV Rheinland Eye Comfort
Yes



¹ USB Type-C* and USB-C* are registered trademarks of USB Implementers Forum.

² Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

³ Compatible with ThinkVision Monitor Camera MC60 and ThinkVision Monitor Soundbar MS30.

⁴ Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

ThinkVision P27q-20

DISPLAY

Panel Size
27-inch

Screen Dimensions
596.74 mm x 335.66 mm

Panel Type
4-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2331 x 0.2331 mm

Dot/Pixel Per Inch (DPI/PPI)
109

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (extreme mode)
6ms (normal mode)

Refresh Rate
60 Hz

Brightness (typical)
350 cd/m2

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB

Color Support (typical)
16.7 Million

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x DP 1.2
1 x DP 1.2 (out)

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB3.1 Gen1 (by USB Type-B)

USB Downstream
4 x USB3.1 Gen1 (1 BC)

SPECIAL FEATURES

Software
Lenovo ThinkColour (Lenovo
Display Control Center)¹

POWER

Power Consumption (typical/max)
22W / 57W

Power Consumption Sleep/O Mode
< 0.5W

Power Consumption Switch-o Mode
< 0.3W

ENERGY STAR Power Consumption
(P_{on}/E_{TEC})
18W / 57kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (Max range)
135 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 X 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 / 2.0 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
182.0 x 463.0 x 722.0 mm /
7.17 x 18.23 x 28.43 inches

Size Unpacked w/ Stand
(D x H x W, mm/inch) (lowest position)
208.0 x 441.5 x 613.8 mm /
8.19 x 17.38 x 27.17 inches

Size Unpacked w/ Stand
(D x H x W, mm/inch) (highest position)
208.0 x 576.5 x 613.8 mm /
8.19 x 22.70 x 27.17 inches

Size Unpacked w/o Stand
(head only) (D x H x W, mm/inch)
46.9 x 353.8 x 613.8 mm /
1.85 x 13.92 x 27.17 inches

Min. Distance from Table to Panel
(lowest pixel at bottom of screen, mm)
97.3 mm

Max. Distance from Table to Panel
(highest pixel at top of screen, mm)
567.9 mm

Weight Packed (kg/lbs.)
9.26 kg / 20.37 lbs.

Weight Unpacked (kg/lbs.)
7.12 kg / 15.7 lbs.

Weight (monitor head only) (kg/lbs.)
4.64 kg / 10.23 lbs.

Full Container Load (40' STD / 20' STD)
792 / 352 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m)
1 x USB Type-B to Type-A cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy
E ciency Standard
Tier 1

TÜV Rheinland
Eye Comfort
Yes



¹This software can only be used with Windows 10

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: ~ 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

ThinkVision P27q-30

DISPLAY

Panel Size
27-inch

Screen Dimensions (W x H, mm)
608.6 mm x 348.6 mm

Panel Type
4-side NearEdgeless
In-Plane Switching

Active Area
596.7 mm x 335.7 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2331 mm x 0.2331 mm

Dot/Pixel Per Inch (DPI/PPI)
109

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode),
6ms (Normal Mode), 14ms (Off Mode)

Refresh Rate
60 Hz

Brightness (Typical)
350 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut
99% sRGB, 99% BT.709,
95% DCI-P3

Color Support (Typical)
1.07 Billion

Color Depth
10-bit (8+FRC)

HDR Compliance
Yes (HDR 10 Decoding)

Anti-Glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 2.0
1 x DP 1.4
1 x DP Out

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB 3.2 Gen1¹ (by USB Type-B)

USB Downstream
4 x USB 3.2 Gen1¹ (1 x BC 1.2)

MULTIMEDIA

Modular Camera/Speaker Support
Yes (Optional Support²)

SPECIAL FEATURES

Factory Calibration
Yes (Avg. Delta E<2)

Software
Lenovo ThinkColour
(Lenovo Display Control Center)³

Natural Low Blue Light
Yes

POWER

Power Consumption (Typ. / Max.)
23W / 68W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-Off Mode
< 0.3W

ENERGY STAR Power Consumption (Pon/E_{TEC})
20W / 60kWh

Power Supply
Internal

Smart Power
Yes

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (Front / Back)
-5° / 23.5°

Swivel Angle (Left / Right)
+45° / -45°

Lift (Max. Range)
155 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Black

Bezel Width (Side)
2.0 mm

Bezel Width (Top / Bottom)
2.0 / 2.0 mm

DIMENSION

Size Packed (D x H x W) (mm/inch)
148.0 x 525.0 x 690.0 mm
5.83 x 20.67 x 27.17 inches

Size Unpacked w/ Stand (Lowest Position) (D x H x W) (mm/inch)
204.5 x 380.3 x 611.9 mm
8.05 x 14.97 x 24.09 inches

Size Unpacked w/ Stand (Highest Position) (D x H x W) (mm/inch)
204.5 x 535.3 x 611.9 mm
8.05 x 21.07 x 24.09 inches

Size Unpacked w/o Stand (Head Only) (D x H x W) (mm/inch)
48.0 x 353.4 x 611.9 mm
1.89 x 13.91 x 24.09 inches

Weight Packed (kg/lb)
10.0 kg / 22.1 lbs.

Weight Unpacked (kg/lb)
6.8 kg / 15.0 lbs.

Weight (Monitor Head Only) (kg/lb)
4.7 kg / 10.4 lbs.

WHAT'S IN THE BOX

Monitor with Stand
Yes

Power Cable
1 x Power Cable (1.8m)

DP Cable (Cable Length)
1 x DP 1.4 Cable (1.8m)

USB Cable
1 x USB Type-A to Type-B Cable (1.8m)

Factory Calibration Report
Yes

Quick Setup Guide
Yes

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
Yes

TCO Edge
Yes

EPEAT
Gold

RoHS (EU 2011/65/EU)
Yes

Windows Certification
Windows 10, Windows 11

China Energy Efficiency Standard
Tier 2

TÜV Rheinland Eye Comfort
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



¹ Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

² Compatible with ThinkVision VoIP Stack MC60 Monitor Webcam and MS30 Monitor Soundbar.

³ This software can only be used with Windows 10 & Windows 11.

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ThinkVision P27u-20

DISPLAY

Panel Size
27-inch

Screen Dimensions (W x H, mm)
608.8 mm x 355.3 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
596.7 mm x 335.7 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
3840 x 2160

Pixel Pitch
0.1554 mm x 0.1554 mm

Dot/Pixel Per Inch (DPI/PPI)
163

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode),
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (Typical)
400 cd/m²

Brightness (Peak)
450 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut
99.5% Adobe RGB (CIE 1931)
99.1% DCI-P3 (CIE 1976)
100% sRGB (CIE 1976)
100% BT.709 (CIE 1976)
83.7% BT.2020 (CIE 1976)

Color Support (Typical)
1.07 Billion

Color Depth
10-bit (8+FRC)

HDR Compliance
Yes (DisplayHDR™ 400)

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x Thunderbolt™ 4 In
1 x Thunderbolt™ 4 Out
2 x HDMI 2.0
1 x DP 1.2

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

Ethernet
Yes (10M/100M/1000M)

USB Upstream
2 x USB3.2 Gen1¹ (1 by USB Type-B,
1 by Thunderbolt™ 4)

USB Downstream
3 x USB3.1 Gen1¹
1 x USB Type-C (Data & Power Delivery)

MULTI-MEDIA

Integrated Speakers
Yes (2 x 3W)

Optional Soundbar Support
Yes (PN number: 0A36190)

SPECIAL FEATURES

Factory Calibration
Yes (Avg. Delta E<1)

KVM Switch
Yes

Software
Lenovo ThinkColour (Lenovo Display
Control Center)²

Smart Sensor
Yes (Smart Light)

Others
Shading Hood³

POWER

Power Consumption (Typ. / Max.)
35W / 240W

Power Consumption Sleep/Off Mode
<0.5W

Power Consumption Switch-off Mode
<0.3W

**ENERGY STAR Power Consumption
(Pon/ETEC)**
26W / 97kWh

Power Supply
Internal

USB Type-C Power Delivery (W)
Up to 27W⁴

TBT Power Delivery (W)
Yes (Up to 100W)

Smart Power
Yes

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (Front / Back)
-5° / 35°

Swivel Angle (Left / Right)
-45° / 45°

Lift (Max. Range)
135 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny Support
Yes, by Tiny Monitor Clamp II
(PN: 4XHOZ42451)³ & Tiny VESA
Mount II (PN: 4XFON03161)³

ThinkCentre M Series Nano Support
Yes, by Nano Monitor Clamp II
(PN: 4XHOZ42451)³ & Nano VESA
Mount (PN: 4XFOV81630)³

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
2.0 mm

Bezel Width (Top / Bottom)
2.0 / 23.6 mm

DIMENSIONS

Size Packed (D x H x W) (mm/inch)
187.0 x 510.0 x 732.0 mm
7.36 x 20.08 x 28.82 inches

**Size Unpacked w/ Stand (D x H x W)
(mm/inch) (Lowest Position)**
219.9 x 421.4 x 613.8 mm
8.66 x 16.59 x 24.16 inches

**Size Unpacked w/ Stand (D x H x W)
(mm/inch) (Highest Position)**
219.9 x 556.4 x 613.8 mm
8.66 x 21.90 x 24.16 inches

**Size Unpacked w/o Stand (Head Only)
(D x H x W) (mm/inch)**
52.9 x 368.8 x 613.8 mm
2.08 x 14.52 x 24.16 inches

Weight Packed (kg / lbs.)
12.8 kg / 28.1 lbs.

Weight Unpacked (kg / lbs.)
8.0 kg / 17.6 lbs.

Weight (Monitor Head Only) (kg / lbs.)
5.4 kg / 11.9 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8m)
1 x DP cable (1.8m) for US & Canada only⁵
1 x HDMI cable (1.8m) for PRC SA only⁵
1 x USB Type-B to Type-A cable (1.8m)⁵
1 x Thunderbolt™ 4 cable (1.0m, 40 Gbps)
Factory calibration report
Quick setup guide

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
9.0

EPEAT
Gold

RoHS (EU 2011/65/EU)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



¹ Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

² This software can only be used with Windows 10.

³ Sold separately.

⁴ Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

⁵ Optional.

ThinkVision S27e-20

DISPLAY

Panel Size
27-inch

Screen Dimensions
612.49 mm x 367.69 mm

Panel Type
In-Plane Switching
3-side NearEdgeless

Active Area
597.89 mm x 336.31 mm

Backlight
LED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.3114 x 0.3114 mm

Dot/Pixel Per Inch (DPI/PPI)
82

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (typical)
250 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
72% NTSC (CIE 1931)

Color Support (typical)
16.7 Million

Anti-Glare
Yes

CONNECTIVITY

Video Signal
1 x HDMI 1.4
1 x VGA

Audio Signal
1 x Audio Out (3.5 mm)

MULTIMEDIA

Optional Soundbar Support
Yes (PN number: OA36190)

SPECIAL FEATURES

Sync Technology
AMD FreeSync™*

POWER

Power Consumption (typical/max)
18W / 24W

Power Consumption Sleep/O Mode
< 0.5W

Power Consumption Switch-o Mode
< 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
48W / 115kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50—60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5°/22°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny Support
Yes, by Tiny VESA mount II (PN: 4XFON03161)

ThinkCentre M Series Nano Support
Yes, by Nano VESA mount (PN: 4XFOV81630)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.5 mm

Bezel Width (top/bottom)
2.5 / 22.4 mm

DIMENSIONS

Size Packed (D x H x W, mm/inch)
126.0 x 455.0 x 710.0 mm
4.96 x 17.91 x 27.95 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
182.5 x 475.8 x 612.5 mm
7.18 x 18.73 x 24.11 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
182.5 x 475.8 x 612.5 mm
7.18 x 18.73 x 24.11 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
43.2 x 367.7 x 612.5 mm
1.70 x 14.48 x 24.11 inches

Weight Packed (kg/lbs.)
6.42 kg / 14.15 lbs.

Weight Unpacked (kg/lbs.)
4.6kg / 10.14 lbs.

Weight (monitor head only) (kg/lbs.)
3.6kg / 7.94 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x HDMI cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Silver

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

TÜV Rheinland Low Blue Light
Yes



*AMD FreeSync™ is enabled for AMD Radeon™ Series graphics cards.

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Specifications may vary depending upon region.

ThinkVision S27q-10

DISPLAY

Panel Size

27-inch

Screen Dimensions

596.74 mm x 335.66 mm

Panel Type

3-side NearEdgeless
In-Plane Switching

Backlight

WLED

Aspect Ratio

16:9

Resolution

2560 x 1440

Pixel Pitch

0.2331 x 0.2331 mm

Dot/Pixel Per Inch (DPI/PPI)

109

Viewing Angle (H x V @ CR 10:1)

178° / 178°

Response Time

4ms (extreme mode)

Refresh Rate

60 Hz

Brightness (typical)

280 cd/m²

Brightness (peak)

350 cd/m²

Contrast Ratio (typical)

1000:1

Dynamic Contrast Ratio (typical)

3M:1

Color Gamut

> 99% sRGB

Color Support (typical)

1.07 Billion

Anti-glare

Yes

CONNECTIVITY

Video Signal

1 x HDMI 1.4
1 x DP 1.2

Audio Signal

1 x Audio Port (3.5 mm)

SPECIAL FEATURES

Tiny Support

Yes

POWER

Power Consumption (typical/max)

35W / 45W

Power Consumption Sleep/O Mode

< 0.5W

Power Consumption Switch-o Mode

< 0.3W

Power Supply

Internal

Energystar Power Consumption (P_{on}/E_{TEC})

19 W / 59.6 kWh

Voltage Required

AC 100 to 240 VAC (50/60 Hz)

MECHANICAL

Tilt Angle (front/back)

-5° / 22°

VESA Mount Capability

Yes (100 x 100 mm)

Kensington™ Lock Slot

Yes

Cable Management

Yes

Bezel Color

Raven Black

Bezel Width (side)

2 mm

Bezel Width (top/bottom)

2 / 22 mm

DIMENSION

Size Packed (D x H x W, mm/inch)

132 x 455 x 715 mm /
5.20 x 17.91 x 28.15 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)

220 x 444.6 x 613.6 mm /
8.66 x 17.50 x 24.15 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)

220 x 444.6 x 613.6 mm /
8.66 x 17.50 x 24.15 inches

Size Unpacked w/o Stand (D x H x W, mm/inch) (head only)

42 x 367.6 x 613.6 mm /
1.65 x 14.47 x 24.15 inches

Min. Distance from Table to Panel (lowest pixel at bottom of screen, mm)

99 mm

Max. Distance from Table to Panel (highest pixel at top of screen, mm)

442.2 mm

Weight Packed (kg/lb)

6.36 kg / 14.02 lbs.

Weight Unpacked (kg/lb)

4.65 kg / 10.25 lbs.

Weight (monitor head only) (kg/lb)

4.10 kg / 9.04 lbs.

Full Container Load (40' STD / 20' STD)

1088 / 544 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x HDMI cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR® Rating

8.0

CCC

Yes

TCO

8.0

EPEAT™

Silver

RoHS (EU 2002/95/EC)

Yes

Windows Certification

Window 7, Window 10

China Energy Efficiency Standard

Tier 1

TÜV Eye Comfort

Yes



Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision S28u-10

DISPLAY

Panel Size
28-inch

Screen Dimensions
631.928 mm x 359.78 mm

Panel Type
3-side NearEdgeless,
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
3840 x 2160

Refresh Rate
60 Hz

Pixel Pitch (H x V)
0.16 x 0.16

Dot/Pixel Per Inch (DPI/PPI)
157.35

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Brightness (typical)
300 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB,
90% DCI-P3

Color Support (typical)
1.07 Billion

CONNECTIVITY

Video Input Signals
HDMI 2.0 + DP 1.2

Audio Signal
1 x Audio Out (3.5mm)

POWER

Power Consumption (Typical/Max)
31W / 48W

Power Consumption Sleep/O Mode
<0.3W

Power Consumption Switch O -Mode
<0.3W

Power Supply
Internal

Energystar Power Consumption (P_{on}/E_{TEC})
24.28W / 75.41kWh

Voltage Required
AC 90 to 264 V (50/60 Hz)

DIMENSIONS

Size Packed (D x H x W) (mm/inch)
127 x 723 x 452 mm /
5 x 28.46 x 17.80 inches

Size Unpacked w/stand (D x H x W) (mm/inch) (Lowest position)
229.99 x 450.82 x 636.94 mm /
9.05 x 17.72 x 25.08 inches

Size Unpacked w/o stand (D x H x W) (mm/inch) (Highest position)
229.99 x 450.82 x 636.94 mm /
9.05 x 17.72 x 25.08 inches

Size Unpacked w/o stand (D x H x W) (mm/inch) (Head Only)
49.2 x 373.68 x 636.94 mm /
1.94 x 14.71 x 25.08 inches

Weight Packed
7.0 kg / 15.43 lbs.

Weight Unpacked
5.24 kg / 11.55 lbs.

Weight (Monitor Head Only)
4.58 kg / 10.10 lbs.

SPECIAL FEATURES

Anti-glare
Yes

ThinkCentre Tiny Support
Yes

MECHANICAL

Tilt Angle (front/back)
-5° / 22°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 / 22.8 mm

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x HDMI cable (1.8 m)
Quick setup guide

CERTIFICATIONS

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

Eyesafe Display Certification
Yes



Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision T27h-20

DISPLAY

Panel Size
27-inch

Screen Dimensions
596.74 mm x 335.66 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2331 x 0.2331 mm

Dot/Pixel Per Inch (DPI/PPI)
109

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (extreme mode)
6ms (normal mode)

Refresh Rate
60 Hz

Brightness (typical)
350 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB

Color Support (typical)
16.7 Million

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C Gen1
(DP 1.2 Alt Mode)
1 x HDMI 1.4
1 x DP 1.2

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB 3.1 Gen1
(by USB Type-C)

USB Downstream
4 x USB 3.1 Gen1 (1 BC)

POWER

Power Consumption (typ./max.)
23W / 122W

Power Consumption Sleep/O Mode
< 0.5W

Power Consumption Switch-o Mode
< 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
18.1W / 57.6kWh

Power Supply
Internal

USB Type-C Power Delivery (W)
up to 75W*

Smart Power
Yes

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max range)
135 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2 mm

Bezel Width (top/bottom)
2 / 23.87 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
694.0 x 163.0 x 480.0 mm
27.32 x 6.42 x 18.90 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
614.0 x 429.4 x 208.0 mm
24.17 x 16.9 x 8.19 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
614.0 x 564.4 x 208.0 mm
24.17 x 22.22 x 8.19 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
614.0 x 369.1 x 46.7 mm
24.17 x 14.53 x 1.84 inches

Min. Distance from Table to Panel (lowest pixel at bottom of screen, mm)
85.2 mm

Max. Distance from Table to Panel (highest pixel at top of screen, mm)
564.4 mm

Weight Packed (kg/lbs.)
9.75 kg / 21.50 lbs.

Weight Unpacked (kg/lbs.)
7.6 kg / 16.76 lbs.

Weight (monitor head only) (kg/lbs.)
5.09 kg / 11.22 lbs.

Full Container Load (40' STD / 20' STD)
952 / 448 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m) (NA only)
1 x USB Type-C to Type-C cable (1.8 m)
1 x USB Type-C to Type-A cable (1.8 m) (NA only)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



*Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

ThinkVision T27h-2L

DISPLAY

Panel Size
27-inch

Screen Dimensions
596.74 mm x 335.66 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
596.74 mm x 335.66 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2331 x 0.2331 mm

Dot/Pixel Per Inch (DPI/PPI)
109

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode)
6ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (typical)
350 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB

Color Support (typical)
16.7 Million

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C¹ Gen1
(DP 1.2 Alt Mode)
1 x HDMI 1.4
1 x DP 1.2

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB 3.1 Gen1
(1 by USB Type-C)

USB Downstream
4 x USB 3.1 Gen1 (1 x BC1.2)

SPECIAL FEATURES

Software
Lenovo ThinkColour (Lenovo
Display Control Center)³

POWER

Power Consumption (typ./max.)
23W / 122W

Power Consumption Sleep/O Mode
< 0.5W

Power Consumption Switch-o Mode
< 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
18.1W / 57.6kWh

Power Supply
Internal

USB Type-C Power Delivery (W)
up to 75 W⁵

Smart Power²
Yes

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (Max range)
135 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 / 23.87 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
694.0 x 163.0 x 480.0 mm
27.32 x 6.42 x 18.90 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
614.0 x 429.4 x 208.0 mm
24.17 x 16.9 x 8.19 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
614.0 x 564.4 x 208.0 mm
24.17 x 22.22 x 8.19 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
614.0 x 369.1 x 46.7 mm
24.17 x 14.53 x 1.84 inches

Weight Packed (kg/lbs.)
9.75 kg / 21.50 lbs.

Weight Unpacked (kg/lbs.)
7.6 kg / 16.76 lbs.

Weight (monitor head only) (kg/lbs.)
5.09 kg / 11.22 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m) (US & Canada only)
1 x USB Type-C to Type-C cable (1.8 m)
1 x USB Type-C to Type-A cable (1.8 m) (US & Canada only)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0
CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Silver

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

TÜV Rheinland Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



¹USB Type-C* and USB-C* are registered trademarks of USB Implementers Forum.

²The Smart Power function intelligently detects overall power consumption and dynamically manages the power delivery to each device.

³This software can only be used with Windows 10

⁴Compatible ThinkCentre Nano PCs include ThinkCentre M90n, ThinkCentre M90n IoT, ThinkCentre M75n, and ThinkCentre M75n IoT.

⁵Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision T27h-30 Monitor

DISPLAY

Panel Size
27-inch

Screen Dimensions
608.8 mm x 355.1 mm

Panel Type
3-side Borderless In-Plane Switching

Active Area
596.7 mm x 335.7 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2331 mm x 0.2331 mm

Dot/Pixel Per Inch (DPI/PPI)
109

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode),
6ms (Normal Mode), 14ms (Off Mode)

Refresh Rate
60 Hz

Brightness (Typical)
350 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut (Coverage Ratio)
99% sRGB (CIE 1931)

Color Support (Typical)
16.7 Million

Color Depth
8-bit

Anti-Glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C¹ (DP 1.4 Alt Mode)
1 x HDMI 2.0
1 x DP 1.4
1 x DP Out

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

Ethernet
Yes (10M/100M/1000M)

USB Upstream
1 x USB 3.2 Gen 1² (by USB Type-C¹)

USB Downstream
4 x USB 3.2 Gen1² (1 x BC 1.2)

SPECIAL FEATURES

Software
Lenovo ThinkColour
(Lenovo Display Control Center)³

Natural Low Blue Light
Yes

Modular Camera/Speaker Support
Yes (Optional Support⁴)

POWER

Power Consumption (Typ. / Max.)
26W / 148W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-Off Mode
< 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
23W / 71kWh

Power Supply
Internal

USB Type-C¹ (DP Alt Mode)
Power Delivery⁵
Up to 90W

Smart Power⁶
Yes

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (Front / Back)
-5° / 23.5°

Swivel Angle (Left / Right)
-45° / 45°

Lift Range
155 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Black

Bezel Width (Side)
2.0 mm

Bezel Width (Top / Bottom)
2.0 / 18.0 mm

DIMENSION

Size Packed (D x H x W) (mm/inch)
525.0 x 148.0 x 690.0 mm
20.67 x 5.83 x 21.17 inches

Size Unpacked w/ Stand (Lowest Position) (D x H x W) (mm/inch)
204.5 x 390.4 x 613.6 mm
8.05 x 15.37 x 24.16 inches

Size Unpacked w/ Stand (Highest Position) (D x H x W) (mm/inch)
204.5 x 545.4 x 613.6 mm
8.05 x 21.47 x 24.16 inches

Size Unpacked w/o Stand (Head Only) (D x H x W) (mm/inch)
50.0 x 363.5 x 613.6 mm
1.97 x 14.31 x 24.16 inches

Weight Packed (kg / lb)
10.1 kg / 22.3 lbs.

Weight Unpacked (kg / lb)
6.9 kg / 15.2 lbs.

Weight (Monitor Head Only) (kg / lb)
4.8 kg / 10.6 lbs.

WHAT'S IN THE BOX

Monitor with Stand
Yes

Power Cable (Cable Length)
1 x Power Cable (1.8m)

DP Cable (Cable Length)
1 x DP 1.4 Cable (1.8m) for US, Canada, and Brazil only

USB Cable (Cable Length)
1 x USB Type-C¹ to Type-C¹ Cable (1.8m)
1 x USB Type-C¹ to Type-A Cable (1.8m) for US, Canada, and Brazil only

Quick Setup Guide
Yes

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
Yes

TCO Edge
Yes

EPEAT
Gold

RoHS (EU 2011/65/EU)
Yes

Windows Certification
Windows 10, Windows 11

China Energy Efficiency Standard
Tier 2

TÜV Rheinland Eye Comfort
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



¹ USB Type-C and USB-C are registered trademarks of USB Implementers Forum. | ² Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2. | ³ This software can only be used with Windows 10 & Windows 11. | ⁴ Compatible with ThinkVision VoIP Stack MC60 Monitor Webcam and MS30 Monitor Soundbar. | ⁵ Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting. | ⁶ The Smart Power function intelligently detects overall power consumption and dynamically manages the power delivery to each device.

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Specifications may vary depending upon region.

ThinkVision T27hv-20

DISPLAY

Panel Size
27-inch

Screen Dimensions
608.78 mm x 355.13 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
596.74 mm x 335.67 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2331 x 0.2331 mm

Dot/Pixel Per Inch (DPI/PPI)
109

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (extreme mode)
6ms (normal mode)

Refresh Rate
60 Hz

Brightness (typical)
350 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB

Color Support (typical)
16.7 Million

Color Depth
8-bit

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C² Gen1
(DP1.2 Alt Mode)
1 x HDMI 1.4
1 x DP 1.2
1 x DP 1.2 out

Audio Signal
1 x Audio combo (3.5 mm; in/out)

USB Hub
Yes

Ethernet
Yes(10M/100M/1000M)

USB Upstream
1 x USB3.2 Gen1
(1 by USB Type-C Gen1)

USB Downstream
4 x USB 3.2 Gen1 (1 x BC1.2)

MULTI-MEDIA

Integrated Webcam
Yes (1080p, IRRGB camera)

Integrated Microphone
Yes

Integrated Speakers
Yes (2 x 3W)

SPECIAL FEATURES

Software
Lenovo ThinkColour (Lenovo
Display Control Center)¹
Yes (Glance by Mirametrix®)¹

Smart Sensor
Yes

POWER

Power Consumption (Typ./Max)
25W / 148W

Power Consumption Sleep/O Mode
0.5W

Power Consumption Switch-o Mode
0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
20.59W / 66.47kWh

Power Supply
Internal

USB Type-C power delivery (W)
Up to 90W³

Smart Power
Yes

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max range)
135 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny support
Yes, by Tiny/Nano monitor clamp II (PN: 4XHOZ42451) & Tiny VESA mount II (PN: 4XFON03161)

ThinkCentre M Series Nano support

Yes, by Tiny/Nano monitor clamp II (PN: 4XHOZ42451) & Nano VESA mount (PN: 4XFOV81630)

Kensington Lock Slot
Yes

Headphone Hook
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 / 50.07 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
159.00 x 515.00 x 860.00 mm
6.26 x 20.28 x 33.86 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
208.00 x 473.60 x 613.60 mm
8.19 x 18.65 x 24.16 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
208.00 x 608.60 x 613.60 mm
8.19 x 23.96 x 24.16 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
45.50 x 412.60 x 613.60 mm
1.79 x 16.24 x 24.16 inches

Weight Packed (kg/lbs.)
10.55kg / 23.26 lbs

Weight Unpacked (kg/lbs.)
7.35kg / 16.20 lbs.

Weight (monitor head only) (kg/lbs.)
4.85kg / 10.69 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x USB Type-C to Type-C cable (1.8 m)
1 x DP cable (1.8m) (NA only)
1 x HDMI cable (1.8m) (PRC only)
1 x USB Type-C to Type-A cable (1.8m) (NA only)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes

TÜV Rheinland Low Blue Light
Yes

Eyesafe Display Certification
Yes



¹This software can only be used with Windows 10

²USB Type-C[®] and USB-C[®] are registered trademarks of USB Implementers Forum

³Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2. Enhanced Sign-in Security is not supported.

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Specifications may vary depending upon region.

ThinkVision T27i-10

DISPLAY

Panel Size

27 inch

Screen Dimensions (H x V) (mm)

597.89 (H) × 336.31 (V)

Panel Type

In-Plane Switching

Backlight

WLED

Aspect Ratio

16:9

Resolution

1920 x 1080

Pixel Pitch (H x V) (mm)

0.3110 × 0.3110

Viewing angle (H x V)

178° / 178°

Response Time (gray to gray)

4 ms (extreme mode)

6 ms (normal mode)

Brightness (typical)

250 cd/m²

Contrast Ratio (typical)

1000:1

Dynamic Contrast Ratio (typical)

3M:1

Color Gamut NTSC (CIE 1931)

72%

Color Support

16.7M

CONNECTIVITY

Video Input Signals

VGA + HDMI 1.4 + DP 1.2

USB Hub

Yes

1 x USB 3.0 (Upstream)

4 x USB 3.0 (Downstream, incl. 1BC)

Cable Length

1.8 m

Audio Out

Yes (3.5 mm)

Power Consumption

22W (Typical) / 58W (max) at On mode;

<0.5W at Sleep mode; <0.3W at Switch off mode

MULTI-MEDIA

Optional Soundbar Support

Yes

DIMENSIONS

Size Packed (D x H x W) (mm/inch)

187 x 455 x 715 mm / 7.362 x 17.913 x 28.15 inch

Size Unpacked w/stand (D x H x W) (mm/inch) (Lowest Position)

269.8 x 403.3 x 611.9 mm / 10.62 x 15.88 x 24.09 inch

Size Unpacked w/stand (D x H x W) (mm/inch) (Highest Position)

269.8 x 513.3 x 611.9 mm / 10.62 x 20.21 x 24.09 inch

Size Unpacked w/o stand (D x H x W) (mm/inch) (Head Only)

49.9 x 366.5 x 611.9 mm / 1.96 x 14.43 x 24.09 inch

Weight Packed (kg/lbs.)

9.32kg / 20.55 lbs.

Weight Unpacked (kg/lbs.)

6.55kg / 14.44 lbs.

Weight (Monitor Head Only) (kg/lbs.)

4.60kg / 10.14 lbs.

SPECIAL FEATURES

Anti-Glare

Yes

Thin Client Support (Tiny)

Yes

(by Tiny Clamp Bracket Kit+VESA

mount PN:4XFON82412+

PN:4XFON03161)

MECHANICAL

Tilt Angle (front/back)

-5°/30°

Swivel Angle (left/right)

-45°/+45°

Lift (Max range)

110 mm

Pivot

-90°/90°

VESA Mount

Yes (100 mm)

Kensington Lock Slot

Yes

Cable Management

Yes

Bezel Color

Raven Black

Bezel Width (Side)

2.0 mm

WHAT'S IN THE BOX

Monitor with stand

1 x Power cable

1 x VGA cable

1 x DP-DP cable

1 x HDMI cable (NA only)

1 x USB 3.0 cable

Quick setup guide

CERTIFICATIONS

ENERGY STAR Rating

8.0

CCC

Yes

TCO

8.0

EPEAT

Silver

ULE

Gold

Windows Certification

Windows 7, Windows 10

China Energy Efficiency Standard

Tier 2

Ambient Operating Temperature

0°C to 40°C

Eye Comfort Certification

Yes



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Specifications may vary depending upon region.

Lenovo

ThinkVision T27i-30 Monitor

DISPLAY

Panel Size
27-inch

Screen Dimensions
607.1 mm x 354.1 mm

Panel Type
3-side Borderless In-Plane Switching

Active Area
597.9 mm x 336.3 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.3114 mm x 0.3114 mm

Dot/Pixel Per Inch (DPI/PPI)
82

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode),
6ms (Normal Mode), 14ms (Off Mode)

Refresh Rate
60 Hz

Brightness (Typical)
300 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut (Coverage Ratio)
99% sRGB (CIE 1931)

Color Support (Typical)
16.7 Million

Color Depth
8-bit (6+FRC)

Anti-Glare
Yes

CONNECTIVITY

Video Signal

1 x HDMI 1.4

1 x DP 1.2

1 x VGA

Audio Signal

1 x Audio Out (3.5 mm)

USB Hub

Yes

USB Upstream

1 x USB 3.2 Gen 1¹ (by USB Type-B)

USB Downstream

4 x USB 3.2 Gen1¹ (1 x BC 1.2)

SPECIAL FEATURES

Software

Lenovo ThinkColour
(Lenovo Display Control Center)²

Natural Low Blue Light

Yes

Modular Camera/Speaker Support

Yes (Optional Support³)

POWER

Power Consumption (Typ. / Max.)
24W / 65W

Power Consumption Sleep/Off Mode
< 0.5W

Power Consumption Switch-Off Mode
< 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
15W / 50kWh

Power Supply
Internal

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (Front / Back)
-5° / 23.5°

Swivel Angle (Left / Right)
+45° / -45°

Lift Range
155 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Black

Bezel Width (Side)
2.0 mm

Bezel Width (Top / Bottom)
2.0 / 17.6 mm

DIMENSION

Size Packed (D x H x W) (mm/inch)
525.0 x 148.0 x 690.0 mm
20.67 x 5.83 x 21.17 inches

Size Unpacked w/ Stand (Lowest Position) (D x H x W) (mm/inch)
204.5 x 389.3 x 611.9 mm
8.05 x 15.33 x 24.09 inches

Size Unpacked w/ Stand (Highest Position) (D x H x W) (mm/inch)
204.5 x 544.3 x 611.9 mm
8.05 x 21.43 x 24.09 inches

Size Unpacked w/o Stand (Head Only) (D x H x W) (mm/inch)
50.0 x 362.5 x 611.9 mm
1.97 x 14.27 x 24.09 inches

Weight Packed (kg / lb)
10.1 kg / 22.3 lbs.

Weight Unpacked (kg / lb)
6.9 kg / 15.2 lbs.

Weight (Monitor Head Only) (kg / lb)
4.9 kg / 10.8 lbs.

WHAT'S IN THE BOX

Monitor with Stand
Yes

Power Cable (Cable Length)
1 x Power Cable (1.8m)

DP Cable (Cable Length)
1 x DP 1.2 Cable (1.8m)

USB Cable (Cable Length)
1 x USB Type-A to Type-B Cable (1.8m)

Quick Setup Guide
Yes

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
Yes

TCO Edge
Yes

EPEAT
Gold

RoHS
Yes

Windows Certification
Windows 10, Windows 11

China Energy Efficiency Standard
Tier 2

TÜV Rheinland Eye Comfort
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



¹ Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

² This software can only be used with Windows 10 & Windows 11. | ³ Modular VoIP solution (ThinkVision MC30 Monitor Soundbar and ThinkVision MC60 Monitor Webcam) is sold separately.

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Specifications may vary depending upon region.

ThinkVision T27p-10

DISPLAY

Panel Size
27.0 inches

Screen Dimensions (H x V)
596.74 x 335.66mm

Panel Type
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
3840 x 2160 pixels

Pixel Pitch (H x V)
0.1554 x 0.1554mm

Viewing Angle (H x V)
178°/178°

Response Time (gray to gray)
4ms (extreme mode)
6ms (normal mode)

Refresh Rate
60Hz

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Brightness (typical)
350 cd/m²

Color Gamut sRGB (CIE 1931)
99%

Color Support
1.07 Billion

POWER

Power Consumption (Typical/Max)
50W/140W

Power Consumption Sleep/O -Mode
<0.5W

Power Consumption Switch O -Mode
<0.3W

Power Supply
Internal

ENERGY STAR (P_{on})
23.40W

ENERGY STAR (E_{tec})
101.94kWh

Voltage Required
100-240VAC (50/60Hz)

CONNECTIVITY

Video Input Signals
HDMI 2.0 + DP 1.2 + USB 3.1 Type-C
(DP 1.2 Alt Mode)

Video Cables Supplied
USB 3.1 Type-C + HDMI

Video Cable Length
1.8m

USB Hub
Yes

USB Upstream
1 x USB 3.1 Gen1 (by USB Type-C)

USB Downstream
4 x USB 3.1 Gen1 (with 1 BC)

Audio Out
Yes (3.5mm)

DIMENSIONS

Size Packed (D x H x W)
732 x 210 x 453mm/
28.82 x 8.27 x 17.83 inches

Size Unpacked w/stand (D x H x W) (mm/inch)
269.8 x 403.3 x 611.6mm/
10.62 x 15.88 x 24.08 inches

Size Unpacked w/o stand (D x H x W) (mm/inch) (Head Only)
45.5 x 368.4 x 611.6mm/
1.79 x 14.5 x 24.08 inches

Weight Packed
11.00kg/24.25lbs.

Weight Unpacked
6.95kg/15.32lbs.

Weight (Monitor Head Only)
5.0kg/11.02lbs.

SPECIAL FEATURES

Smart Power*
Yes

Anti-glare
Yes

ThinkCentre Tiny Support
Yes

Optional Soundbar Support
Yes

MECHANICAL

Tilt Angle (front/back)
-5°/30°

Swivel Angle (left/right)
+/-45°

Lift
Yes (110mm)

Pivot
+/-90°

VESA Mount Capability
Yes (100 x 100mm)

Kensington Lock Slot
Yes

Bezel Width (Side)
2.0mm

Bezel Width (top/bottom)
2.0/24.5mm

WHAT'S IN THE BOX

Monitor with stand
1 x Power Cable
1 x HDMI Cable
1 x USB Type-C to Type-C cable
Quick Setup Guide

CERTIFICATIONS

ENERGY STAR Rating
8.0

EU RoHS
Yes

CCC
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 2

TÜV Eye Comfort
Yes

TCO
TCO 8.0/TCO Edge 2.0

EPEAT
Silver



*The Smart Power function intelligently detects overall power consumption and dynamically manages the power delivery to each device. 75W power delivery can be achieved when downstream USB ports are not connected and OSD brightness setting is <61.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision T27q-20

DISPLAY

Panel Size

27-inch

Screen Dimensions

596.74 mm x 335.66 mm

Panel Type

3-side NearEdgeless
In-Plane Switching

Backlight

WLED

Aspect Ratio

16:9

Resolution

2560 x 1440

Pixel Pitch

0.2331 x 0.2331 mm

Dot/Pixel Per Inch (DPI/PPI)

109

Viewing angle (H x V @ CR 10:1)

178° / 178°

Response Time

4ms (extreme mode)
6ms (normal mode)

Refresh Rate

60 Hz

Brightness (typical)

350 cd/m²

Contrast Ratio (typical)

1000:1

Dynamic Contrast Ratio (typical)

3M:1

Color Gamut

99% sRGB

Color Support (typical)

16.7 Million

Anti-glare

Yes

CONNECTIVITY

Video Signal

1 x HDMI 1.4
1 x DP 1.2

Audio Signal

1 x Audio Out (3.5 mm)

USB Hub

Yes

USB Upstream

1 x USB 3.1 Gen1
(by USB Type-B)

USB Downstream

4 x USB 3.1 Gen1 (1 BC)

POWER

Power Consumption (typ./max.)

23W / 65W

Power Consumption

Sleep/O Mode
< 0.5W

Power Consumption

Switch-o Mode
< 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})

17.4W / 54.4kWh

Power Supply

Internal

Voltage Required

AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)

-5° / 35°

Swivel Angle (left/right)

+45° / -45°

Lift (max range)

135 mm

Pivot

-90° / 90°

VESA Mount Capability

Yes (100 x 100 mm)

Kensington Lock Slot

Yes

Cable Management

Yes

Bezel Color

Raven Black

Bezel Width (side)

2 mm

Bezel Width (top/bottom)

2 / 23.87 mm

DIMENSION

Size Packed

(D x H x W, mm/inch)
694 x 163 x 480 mm
27.32 x 6.42 x 18.9 inches

Size Unpacked w/ Stand (lowest position)

(D x H x W, mm/inch)
614 x 429.4 x 208 mm
24.17 x 16.9 x 8.19 inches

Size Unpacked w/ Stand (highest position)

(D x H x W, mm/inch)
614 x 564.4 x 208 mm
24.17 x 22.22 x 8.19 inches

Size Unpacked w/o Stand (head only)

(D x H x W, mm/inch)
614 x 369.1 x 46.7 mm
24.17 x 14.53 x 1.84 inches

Min. Distance from Table to Panel (lowest pixel at bottom of screen, mm)

85.2 mm

Max. Distance from Table to Panel (highest pixel at bottom of screen, mm)

564.4 mm

Weight Packed (kg/lbs.)

9.59 kg / 21.14 lbs.

Weight Unpacked (kg/lbs.)

7.44 kg / 16.4 lbs.

Weight (Monitor Head Only) (kg/lbs.)

4.93 kg / 10.87 lbs.

Full Container Load (40' STD / 20' STD)

952 / 448 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power Cable (1.8 m)
1 x DP cable (1.8 m)
1 x USB Type-B to Type-A cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating

8.0

CCC

Yes

TCO

8.0

TCO Edge

2.0

EPEAT

Gold

RoHS (EU 2002/95/EC)

Yes

Windows Certification

Windows 7, Windows 10

China Energy Efficiency Standard

Tier 1

TÜV Rheinland Eye Comfort

Yes



Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision X1 (2nd GEN) MONITOR



SPECIFICATIONS

DISPLAY

Panel Size	27"
Panel Type	IPS
Backlight	WLED
Resolution	3840 (H) x 2160 (V)
Aspect Ratio	16:9
Anti-Glare	Yes
Screen Dimensions (W x H) (mm)	596.7 (H) x 335.7 (V)
Maximum Brightness (Typical)	350 cd/m ²
Viewing Angle (H/V at CR 10:1)	178°/178°
Contrast Ratio (Typical)	1000:1
Dynamic Contrast Ratio	3M:1
Pixel Pitch (W x H) (mm)	0.1554 x 0.1554
Dot/Pixel Per Inch (DP/PPI)	163
Color Gamut (CIE 1931)	99% sRGB
Response Time (Extreme/Typical/Off)	4/6/14 ms (G-to-G)

POWER CONSUMPTION

Typical	40 W
Maximum	150 W
Sleep-Mode	0.5 W
Switch Off-Mode	0.5 W
Power Supply	External
Power Voltage	10 VAC - 240 VAC
Voltage Dynamic Frequency	50 Hz - 60 Hz

SIGNAL INPUT

Video Input Signals	DisplayPort 1.2 + HDMI 2.0 + Thunderbolt™ 3
Video Cables Supplied	HDMI + Thunderbolt™ 3
Video Cable Length	1.8 m
USB Hub	Yes (4 x USB 3.0 ¹)
USB Cable Supplied	N/A
Audio-Jack	Yes

SIGNAL INTERFACE / PERFORMANCE

Horizontal Frequency	30 KHz - 136 KHz
Vertical Frequency	30 Hz - 60 Hz
Native Resolution	3840 x 2160
Maximum Pixel Clock Speed/Bandwidth	20 Gbps
Default Color Temperature	6500K
Preset Modes	24
OSD Buttons	2 Buttons + Tracking Point
OSD Languages	English, French, Italian, German, Spanish, Japanese, Chinese, Russian

MECHANICAL

Tilt Angle (Front / Back)	-5° / 30°
Swivel Angle (Left / Right)	N/A
Lift (mm)	N/A
Pivot	N/A
VESA Mount (mm)	N/A
Kensington Lock Slot	Yes
Cable Management	Yes
Bezel Color	N/A
Bezel Width	
Top (mm / inches)	1.2 / 0.04"
Bottom (mm / inches)	1.2 / 0.04"
Sides (mm / inches)	1.2 / 0.04"

ENVIRONMENTAL

Temperature	
Operating	0°C - 45°C
Non-Operating	-20°C - 60°C
Humidity	
Operating	8% - 80%
Non-Operating	5% - 95%
Altitude	
Operating	16,000 ft
Non-Operating	40,000 ft
Arsenic-Free Glass	Yes
PVC-Free	Yes (W/O cable)
Mercury-Free	Yes
PCC % of Plastic Resins	25%

DIMENSIONS (W x D x H)

Size Packed	
(mm)	718 x 140 x 470
(inches)	28.27" x 5.51" x 18.5"
Size Unpacked with Stand	
(mm)	609.74 x 234.81 x 474.76
(inches)	24" x 9.24" x 18.69"
Size Unpacked without Stand	
Monitor Head Only	
(mm)	609.74 x 32.7 x 351.71
(inches)	24" x 1.29" x 13.85"
Distance from Table to Panel	
Lowest Pixel at Bottom of Screen	
(mm / inches)	134 / 5.276"
Highest Pixel at Top of Screen	
(mm / inches)	450 / 17.717"
Stand Base Footprint Area	
(mm)	234.81 x 234.81
(inches)	9.24" x 9.24"
Weight	
Packed	Starting at 18.45 lbs (8.37 kg)
Unpacked	Starting at 12.21 lbs (5.54 kg)
Monitor Head Only	Starting at 9.46 lbs (4.29 kg)

COMPLIANCE

ULE	Gold
TCO	7.0
RoHS	Yes
Windows Certification	Windows 10
China Energy Label	Grade 2

WARRANTY AND AVAILABILITY

Warranty	3 Years
Geography Availability	WW

¹ Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen 1; 10 Gbit/s for USB 3.1 Gen 2 & 20 Gbit/s for USB 3.2.



WWW.LENOVO.COM

ThinkVision P32p-20

DISPLAY

Panel Size
31.5-inch

Screen Dimensions
697.31 mm x 392.23 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
3840 x 2160

Pixel Pitch
0.1816 x 0.1816 mm

Dot/Pixel Per Inch (DPI/PPI)
140

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (extreme mode)
6ms (normal mode)

Refresh Rate
60 Hz

Brightness (typical)
350 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB
99% BT.709
90% DCI-P3

Color Support (typical)
1.07 Billion

Color Depth
10-bit

Processor LUT
14-bit

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C¹ Gen1
(DP1.2 Alt Mode)
1 x HDMI 2.0
1 x DP 1.2

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

Ethernet
Yes (10M/100M/1000M)

USB Upstream
2 x USB 3.2 Gen1 (1 by USB
Type-C, 1 by USB Type-B)

USB Downstream
3 x USB 3.2 Gen1 (1 x BC1.2)

MULTI-MEDIA

Optional Soundbar Support
Yes (PN:OA36190)

SPECIAL FEATURES

Factory Calibration
Yes (Avg. Delta E<2)

Software
Lenovo ThinkColour (Lenovo
Display Control Center)²

KVM Switch
Yes

POWER

Power Consumption (typ./max.)
36W / 186W

Power Consumption Sleep/O Mode
< 0.5W

Power Consumption Switch-o Mode
< 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
27W / 84kWh

Power Supply
Internal

USB Type-C Power Delivery (W)
up to 90 W³

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max. range)
135 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

ThinkCentre M Series Tiny support
Yes, by Tiny/Nano monitor clamp II (PN: 4XHOZ42451) & Tiny VESA mount II (PN: 4XFON03161)⁴

ThinkCentre M Series Nano support

Yes, by Tiny/Nano monitor clamp II (PN: 4XHOZ42451) & Nano VESA mount (PN: 4XFOV81630)⁴

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 / 24.1 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
528 x 190 x 845 mm
20.79 x 7.48 x 32.27 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
235.0 x 469.4 x 714.6 mm
9.25 x 18.48 x 28.13 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
235.0 x 604.4 x 714.6 mm
9.25 x 23.79 x 28.13 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
714.6 x 426.0 x 51.0 mm
28.13 x 16.77 x 2.01 inches

Weight Packed (kg/lbs.)
13.30 kg/29.32 lbs.

Weight Unpacked (kg/lbs.)
10.21 kg/22.51 lbs.

Weight (monitor head only) (kg/lbs.)
6.96 kg/15.34 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m) (for US and Canada only)
1 x USB Type-C to Type-C cable (1.8 m)
1 x USB Type-A to Type-B cable (1.8 m)
Factory calibration report
Quick setup guide

CERTIFICATION

ENERGY STAR
Yes

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



¹USB Type-C* and USB-C* are registered trademarks of USB Implementers Forum.

²This software can only be used with Windows 10

³Up to 90W power delivery to compatible devices by USB Type-C. Listed as maximum capacity of power delivery. Actual capacity may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

⁴Accessories sold separately

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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ThinkVision P32u-10

SPECIFICATIONS

DISPLAY

Panel Size	32 inches
Screen Dimensions (H x V)	708.48 x 398.52mm
Panel Type	In-Plane Switching
Backlight	WLED
Aspect Ratio	16:9
Resolution	3840 x 2160 pixels
Pixel Pitch (H x V)	0.1845 x 0.1845mm
Viewing Angle (H x V)	178°/178°
Response Time (gray to gray)	4ms (extreme mode) 6ms (normal mode)
Contrast Ratio (typical)	1000:1
Dynamic Contrast Ratio (typical)	3M:1
Color Gamut	99.5% Adobe RGB, 100% sRGB, 100% BT.709, 98.2% DCI-P3, 79.3% BT.2020
Color Support	1.07 Billion

CONNECTIVITY

Video Input Signals	2 HDMI 2.0 + DP 1.2 + Thunderbolt™ 3 In + Thunderbolt™ 3 Out
Video Cable Length	2m for Thunderbolt™ 1.8m for HDMI & DP
Audio Out	Yes (3.5mm)
USB Hub	Yes 2 x USB 3.0 (Upstream, 1 by Thunderbolt™ 3) 4 x USB 3.0 (Downstream, incl. 1BC)
Power Consumption	<57W (Typical) / <190W (Max) at On mode <0.5W at Sleep mode <0.3W at Switch off mode

DIMENSIONS

Size Packed (D x H x W)	844 x 228 x 528mm / 33.23 x 8.98 x 20.79 inches
Size Unpacked w/stand (D x H x W) (Lowest Position)	350.0 x 497.85 x 726.7mm/13.78 x 19.6 x 28.61 inches
Size Unpacked w/stand (D x H x W) (Highest Position)	350.0 x 607.85 x 726.7mm/13.78 x 23.93 x 28.61 inches
Size Unpacked w/o stand (D x H x W) (Head Only)	58.95 x 431.5 x 726.7mm/2.32 x 16.99 x 28.61 inches

WEIGHT

Weight Packed	14.30kg/31.32lbs.
Weight Unpacked	10.97kg/24.18lbs.
Weight (Monitor Head Only)	6.97kg/15.37lbs.

SPECIAL FEATURES

Factory Calibration	Yes
Anti-Glare	Yes
PIP/PBP	Yes
KVM switch	Yes
Software	Yes (ThinkColor)

MECHANICAL

Tilt Angle (front/back)	-5°/22°
Swivel Angle (left/right)	-45°/+45°
Lift (Max range)	110mm
Pivot	-90°/90°
VESA Mount Capability	Yes (100 x 100mm)

Kensington Lock Slot	Yes
Cable Management	Yes
Bezel Color	Raven Black
Bezel Width (side)	2mm
Bezel Width (top/bottom)	2.0/23.8mm

WHAT'S IN THE BOX

Monitor with stand	1 x Power cable 1 x DP-DP cable 1 x HDMI cable 1 x USB 3.0 cable 1 x Thunderbolt™ 3 cable (20Gbps) 1 x CD (ThinkColor) Factory calibration report Quick setup guide
---------------------------	--

CERTIFICATIONS

CCC	Yes
RoHS	Yes
TCO	7.0
Windows Certification	Windows 7, Windows 10
China Energy Efficiency Standard	Tier 2
TÜV Eye Comfort	Yes



ThinkVision P34w-20

DISPLAY

Panel Size

34.14-inch

Screen Dimensions

812.1 mm x 359.5 mm

Panel Type

In-Plane Switching

Active Area

799.8 mm x 334.8 mm

Curvature

3800R

Backlight

WLED

Aspect Ratio

21:9

Resolution

3440 x 1440

Pixel Pitch

0.2325 mm x 0.2325 mm

Dot/Pixel Per Inch (DPI/PPI)

109

Viewing Angle (H x V @ CR 10:1)

178° / 178°

Response Time

4ms (Extreme Mode)

6ms (Normal Mode)

Refresh Rate

60 Hz

Brightness (Typical)

300 cd/m²

Contrast Ratio (Typical)

1000:1

Dynamic Contrast Ratio (Typical)

3M:1

Color Gamut

99% sRGB

Color Support (Typical)

1.07 Billion

Color Depth

8-bit + FRC

HDR Compliance

Yes

Anti-glare

Yes

CONNECTIVITY

Video Signal

1 x USB3.2 Gen1 Type-C (DP 1.2 Alt Mode)

2 x HDMI 2.0

1 x DP 1.2

1 x DP Out

Audio Signal

1 x Audio Out (3.5 mm)

USB Hub

Yes

Ethernet

Yes (10M/100M/1000M)

USB Upstream

1 x USB3.2 Gen1 Type-C

1 x USB3.2 Gen1 Type-B

USB Downstream

1 x USB3.2 Gen1 Type-C

3 x USB3.2 Gen1 Type-A

DaisyChain Support

Yes (DP Out)

MULTI-MEDIA

Integrated Speakers

Yes (2 x 3W)

SPECIAL FEATURES

Factory Calibration

Yes (Avg. Delta E<2)

PIP/PBP

Yes

KVM Switch

Yes

Software

Lenovo ThinkColour (Lenovo Display

Control Center)²

POWER

Power Consumption (Typ. / Max)

36W / 230W

Power Consumption Sleep/ Off Mode

<0.5W

Power Consumption Sleep/Off Mode

<0.3W

ENERGY STAR Power Consumption (Pon/E_{TEC})

30W / 93kWh

Power Supply

Internal

USB Type-C Power Delivery (W)

Up to 100W

Smart Power

Yes

Voltage Required

AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (Front/Back)

-5° / 35°

Swivel Angle (Left/Right)

-45° / 45°

Lift (Max. Range)

150 mm

VESA Mount Capability

Yes (100 x 100 mm)

ThinkCentre M Series Tiny Support

Yes, by Tiny Monitor Clamp II

(PN: 4XHOZ42451⁷)

ThinkCentre M Series Nano Support

Yes, by Nano Monitor

Clamp II (PN: 4XHOZ42451⁷)

Kensington Lock Slot

Yes

Cable Management

Yes

Bezel Color

Raven Black

Bezel Width (Side)

9.5 mm

Bezel Width (Top/Bottom)

9.5 / 28.4 mm

DIMENSION

Size Packed (D x H x W) (mm/inch)

220.0 x 475.0 x 937.0 mm

8.66 x 18.70 x 36.89 inches

Size Unpacked w/ Stand (D x H x W)

(mm/inch) (Lowest Position)

245.0 x 469.3 x 817.3 mm

9.65 x 18.48 x 32.18 inches

Size Unpacked w/ Stand (D x H x W)

(mm/inch) (Highest Position)

245.0 x 621.4 x 817.3 mm

9.65 x 24.46 x 32.18 inches

Size Unpacked w/o Stand (Head Only)

(D x H x W) (mm/inch)

76.8 x 372.7 x 817.3 mm

3.02 x 14.67 x 32.18 inches

Weight Packed (kg/lbs.)

15.5 kg / 34.2 lbs.

Weight Unpacked (kg/lbs.)

10.8 kg / 23.8 lbs.

Weight (Monitor Head Only) (kg/lbs.)

7.4 kg / 16.2 lbs.

WHAT'S IN THE BOX

Monitor with stand

1 x Power cable (1.8m)

1 x DP cable (1.8m) (NA only)

1 x USB Type-C to Type-A cable

(1.8m) (NA only)

1 x USB Type-C cable (1.8m)

Factory calibration report

Quick setup guide

CERTIFICATION

ENERGY STAR Certification

Yes

CCC

Yes

TCO

9.0

EPEAT

Gold

RoHS (EU/2011/65)

Yes

Windows Certification

Windows 10, Windows 11

China Energy Efficiency Standard

Tier 1

TÜV Rheinland Eye Comfort

Yes

TÜV Rheinland Low Blue Light

Yes

TÜV Rheinland Flicker Free

Yes

TÜV Low Blue Light (Hardware

Solution)

Yes

Eyesafe Display Certification

Yes



¹ USB Type-C and USB-C are registered trademarks of USB Implementers Forum. | ² This software can only be used with Windows 10 & Windows 11. | ³ Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration and may decline with downstream USB ports connected or higher brightness setting. | ⁴ True Split is available with USB-C or DisplayPort connection in Windows only; not supporting in MAC OS. | ⁵ HDR10 only. | ⁶ For selected Lenovo notebooks. | ⁷ Sold separately.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision P40w-20

DISPLAY

Panel Size
39.7-inch

Screen Dimensions
942.6 mm x 414.6 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Active Area
929.3 mm x 392 mm

Curvature
2500R

Backlight
WLED

Aspect Ratio
21:9

Resolution
5120 x 2160

Pixel Pitch
0.1815 x 0.1815 mm

Dot/Pixel Per Inch (DPI/PPI)
140

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (Extreme Mode),
6ms (Normal Mode)

Refresh Rate
75 Hz⁶

Brightness (Typical)
300 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut
99% sRGB, 98% DCI-P3

Color Support (Typical)
1.07 Billion

Color Depth
10-bit

HDR Compliance
Yes⁴

Anti-glare
Yes

SPECIAL FEATURES

Factory Calibration
Yes (Avg. Delta E<2)

Software
Lenovo ThinkColour (Lenovo
Display Control Center)¹

PIP/PBP
Yes

KVM Switch
Yes

CONNECTIVITY

Video Signal
2 x Thunderbolt™ 4
1 x HDMI 2.0
1 x DP 1.4

Audio Signal
1 x Audio Out (3.5 mm)

Ethernet
Yes (10M/100M/1000M)

USB Hub
Yes

USB Upstream
1 x USB 3.2 Gen 1^a
(1 by USB Type-B)
1 x Thunderbolt™ 4

USB Downstream
4 x USB 3.2 Gen 1 Type-A^a
1 x USB 3.2 Gen 1 Type-C^a
1 x Thunderbolt™ 4

POWER

Power Consumption (Typical / Max.)
66W / 250W

Power Consumption Sleep/Off Mode
<0.5W

Power Consumption Switch-Off Mode
<0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
53W/168kWh

Power Supply
Internal

USB Type-C Power Delivery (W)
up to 27W³

TBT Power Delivery (W)
Yes (Up to 100W³)

Smart Power
Yes

Voltage Required
AC 100 to 240 V
(50—60 Hz)

MECHANICAL

Tilt Angle (Front / Back)
-5° / 22°

Swivel Angle (Left / Right)
-45° / 45°

Lift (Max. Range)
130 mm

VESA Mount Capability
Yes (100 x 100 mm &
200 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
2.0 mm

Bezel Width (Top / Bottom)
2.0 / 23.0 mm

DIMENSIONS

Size Packed (D x H x W, mm/inch)
275.0 x 526.0 x 1085.0 mm
10.82 x 20.70 x 42.71 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (Lowest Position)
279.4 x 511.2 x 947.6 mm
11.00 x 20.12 x 37.30 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (Highest Position)
279.4 x 641.2 x 947.6 mm
11.00 x 25.24 x 37.30 inches

Size Unpacked w/o Stand (Head Only) (D x H x W, mm/inch)
100.8 x 428.7 x 947.6 mm
3.96 x 16.88 x 37.30 inches

Weight Packed (kg / lbs.)
20.0 kg / 44.1 lbs.

Weight Unpacked (kg / lbs.)
14.6 kg / 32.2 lbs.

Weight (Monitor Head Only) (kg / lbs.)
9.9 kg / 21.9 lbs.

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x Thunderbolt™ 4 cable (40 Gbps)
Quick setup guide
Factory calibration report

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

TCO
9.0

EPEAT
Gold

RoHS (EU 2011/65/EC)
Yes

Windows Certification
Windows 10, Windows 11

China Energy Efficiency Standard
Tier 2

TÜV Rheinland Eye Comfort
Yes

TÜV Rheinland Low Blue Light
Yes

TÜV Rheinland Flicker Free
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



¹ This software can only be used with Windows 10 & Windows 11. ² USB Type-C and USB-C are registered trademarks of USB Implementers Forum. ³ Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting. ⁴ HDR10 only. ⁵ True Split is available with Thunderbolt™ or DisplayPort™ connection in Windows only. ⁶ Thunderbolt™ and DisplayPort™ only. ⁷ eKVM functionality may vary if using a different brand of mouse. ⁸ Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: 5 Gbit/s for USB 3.2 Gen 1; 10 Gbit/s for USB 3.2 Gen 2 & 20 Gbit/s for USB 3.2 Gen2x2.

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Specifications may vary depending upon region.

ThinkVision T32h-20 Monitor

DISPLAY

Panel Size
31.5-inch

Screen Dimensions
698.11 mm x 392.69 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
2560 x 1440

Pixel Pitch
0.2727 x 0.2727 mm

Dot/Pixel Per Inch (DPI/PPI)
94

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
4ms (extreme mode)
6ms (normal mode)

Refresh Rate
60 Hz

Brightness (typical)
350 cd/m²

Contrast Ratio (typical)
1000:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
99% sRGB

Color Support (typical)
1.07 Billion

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C Gen1
(DP 1.2 Alt Mode)
1 x HDMI 1.4
1 x DP 1.2

Audio Signal
1 x Audio out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB 3.1 Gen1
(by USB Type-C)

USB Downstream
4 x USB 3.1 Gen1 (1 BC)

POWER

Power Consumption (typ./max.)
28W / 138W

Power Consumption Sleep/O Mode
< 0.5W

Power Consumption Switch-o Mode
< 0.3W

ENERGY STAR Power Consumption (P_{on}/E_{TEC})
21.6W / 69.2kWh

Power Supply
Internal

USB Type-C Power Delivery (W)
up to 75 W*

Smart Power
Yes

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
-45° / 45°

Lift (max range)
135 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 / 24.12 mm

DIMENSION

Size Packed (D x H x W, mm/inch)
528.0 x 190.0 x 845.0 mm /
20.79 x 7.48 x 32.27 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
235.0 x 469.4 x 714.6 mm /
9.25 x 18.48 x 28.13 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
235.0 x 604.4 x 714.6 mm /
9.25 x 23.79 x 28.13 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)
714.6 x 426.0 x 51.0 mm /
28.13 x 16.77 x 2.01 inches

Min. Distance from Table to Panel (lowest pixel at bottom of screen, mm)
69.2 mm

Max. Distance from Table to Panel (highest pixel at top of screen, mm)
461.8 mm

Weight Packed (kg/lbs.)
12.96 kg / 28.57 lbs.

Weight Unpacked (kg/lbs.)
9.85 kg / 21.72 lbs.

Weight (monitor head only) (kg/lbs.)
6.78 kg / 14.95 lbs.

Full Container Load (40' STD / 20' STD)
672 / 320 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m) (NA only)
1 x USB Type-C to Type-A cable (1.8 m) (NA only)
1 x USB Type-C to Type-C cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Eye Comfort
Yes



*Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Specifications may vary depending upon region.

Lenovo

ThinkVision T32p-20

DISPLAY

Panel Size
31.5-inch

Screen Dimensions
697.31 mm x 392.23 mm

Panel Type
3-side NearEdgeless
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
3840 x 2160

Pixel Pitch
0.1816 x 0.1816 mm

Dot/Pixel Per Inch (DPI/PPi)
140

**Viewing Angle
(H x V @ CR 10:1)**
178° / 178°

Response Time
6ms (normal mode)
4ms (extreme mode)

Refresh Rate
60 Hz

Brightness (typical)
350 cd/m²

Contrast Ratio (typical)
1000:1

**Dynamic Contrast Ratio
(typical)**
3M:1

Color Gamut
99% sRGB

Color Support (typical)
1.07 Billion

Anti-glare
Yes

CONNECTIVITY

Video Signal
1 x USB Type-C Gen1 (DP1.2 Alt Mode)**
1 x HDMI 2.0
1 x DP 1.2

Audio Signal
1 x Audio Out (3.5 mm)

USB Hub
Yes

USB Upstream
1 x USB 3.1 Gen1 (by USB Type-C)

USB Downstream
4 x USB 3.1 Gen1 (1 BC)

POWER

Power Consumption (typ./max.)
39W / 135W

**Power Consumption
Sleep/O Mode**
< 0.5W

**Power Consumption
Switch-o Mode**
< 0.3W

**ENERGY STAR Power Consumption
(P_{on}/E_{TEC})**
26.9W / 84.9kWh

Power Supply
Internal

**USB Type-C
power delivery (W)**
up to 75W*

Smart Power
Yes

Voltage Required
AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)
-5° / 35°

Swivel Angle (left/right)
+45° / -45°

Lift (max range)
135 mm

Pivot
-90° / 90°

VESA Mount Capability
Yes (100 x 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
2.0 mm

Bezel Width (top/bottom)
2.0 / 24.12 mm

DIMENSION

**Size Packed
(D x H x W, mm/inch)**
190 x 528 x 845 mm
7.48 x 20.79 x 32.27 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)
235.0 x 469.4 x 714.6 mm
9.25 x 18.48 x 28.13 inches

Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)
235.0 x 604.4 x 714.6 mm
9.25 x 23.79 x 28.13 inches

**Size Unpacked w/o Stand
(head only) (D x H x W, mm/inch)**
51.0 x 426.0 x 714.6 mm
2.01 x 16.77 x 28.13 inches

**Min. Distance from Table to Panel
(lowest pixel at bottom
of screen, mm)**
69.2 mm

**Max. Distance from Table to Panel
(highest pixel at top
of screen, mm)**
461.8 mm

Weight Packed (kg/lbs.)
12.96 kg / 28.57 lbs.

Weight Unpacked (kg/lbs.)
9.85 kg / 21.72 lbs.

**Weight (monitor head only)
(kg/lbs.)**
6.78 kg / 14.95 lbs.

**Full Container Load (40' STD /
20' STD)**
672 / 320 units

WHAT'S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m)
(NA only)
1 x USB Type-C to Type-C
cable (1.8 m)
1 x USB Type-C to Type-A
cable (1.8 m) (NA only)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

TCO
8.0

TCO Edge
2.0

EPEAT
Gold

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

**China Energy Efficiency
Standard**
Tier 1

TÜV Rheinland Eye Comfort
Yes



*Listed as the maximum capacity of power delivery. The actual capacity of power delivery may vary depending upon devices connected or monitor configuration and may decline with downstream USB ports connected or higher brightness settings.

**When connecting one cable USB Type-C at 4K 60Hz, the USB downstream will be USB2.0 by default due to technical limitations. Users can still use USB 3.0 by selecting in OSD and as a result, the display will be adjusted to 4K 30Hz.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

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Lenovo

Specifications

DISPLAY

Panel Size	34-inch
Screen Dimensions	797.20 mm x 333.70 mm
Panel Type	3-side NearEdgeless VA
Curvature	1500R
Backlight	WLED
Aspect Ratio	21:9
Resolution	3440 x 1440
Pixel Pitch	0.2317 x 0.2317 mm
Dot/Pixel Per Inch (DPI/PPI)	109
Viewing Angle (H x V @ CR 10:1)	178° / 178°
Response Time	4ms (extreme mode) 6ms (normal mode)
Refresh Rate	60 Hz
Brightness (typical)	350 cd/m ²
Contrast Ratio (typical)	3000:1
Dynamic Contrast Ratio (typical)	3M:1
Colour Gamut	99% sRGB
Color Support (typical)	16.7 Million
Anti-glare	Yes

CONNECTIVITY

Video Signal	1 x USB Type-C Gen1 (DP1.2 Alt Mode) 1 x HDMI 2.0 1 x DP 1.2
Audio Signal	1 x Audio Out (3.5 mm)
USB Upstream	1 x USB 3.1 Gen1 (by USB Type-C)
USB Downstream	4 x USB 3.1 Gen1 (1 BC)

POWER

Power Consumption (typ./max.)	46W / 140W
Power Consumption Sleep/Off Mode	< 0.5W
Power Consumption Switch-off Mode	< 0.5W
ENERGY STAR Power Consumption (P_{on}/E_{TEC})	34W / 107kWh
USB Type-C Power Delivery (W)	Up to 75W*
Smart Power	Yes
Voltage Required	AC 100 to 240 V (50-60 Hz)

MECHANICAL

Tilt Angle (front/back)	-5°/ 35°
Swivel Angle (left/right)	+45°/ -45°
Lift (max range)	135 mm
VESA Mount Capability	Yes (100 x 100 mm)
Kensington Lock Slot	Yes
Cable Management	Yes
Bezel Color	Raven Black
Bezel Width (side)	2.2 mm
Bezel Width (top/bottom)	2.2 / 27.8 mm

DIMENSION

Size Packed (D x H x W, mm/inch)	523.0 x 250.0 x 980.0 mm / 20.59 x 9.84 x 38.58 inches
Size Unpacked w/ Stand (D x H x W, mm/inch) (lowest position)	245.0 x 462.4 x 808.6 mm / 9.65 x 18.21 x 31.84 inches
Size Unpacked w/ Stand (D x H x W, mm/inch) (highest position)	245.0 x 597.4 x 808.6 mm / 9.65 x 23.52 x 31.84 inches

Size Unpacked w/o Stand (head only) (D x H x W, mm/inch)	106.1 x 372.6 x 808.6 mm / 4.18 x 14.67 x 31.84 inches
Min. Distance from Table to Panel (lowest pixel at bottom of screen, mm)	119.1 mm
Max. Distance from Table to Panel (highest pixel at top of screen, mm)	587.9 mm
Weight Packed (kg/lbs.)	13.85 kg / 30.53 lbs.
Weight Unpacked (kg/lbs.)	9.91 kg / 21.85 lbs.
Weight (monitor head only) (kg/lbs.)	6.91 kg / 15.23 lbs.
Full Container Load (40’ STD / 20’ STD)	432 / 216 units

WHAT’S IN THE BOX

Monitor with stand
1 x Power cable (1.8 m)
1 x DP cable (1.8 m) (NA only)
1 x USB Type-C to Type-A cable (1.8 m) (NA only)
1 x USB Type-C to Type-C cable (1.8 m)
Quick setup guide

CERTIFICATION

ENERGY STAR Rating	8.0
CCC	Yes
TCO	8.0
TCO Edge	2.0
EPEAT	Silver
RoHS (EU 2002/95/EC)	Yes
Windows Certification	Windows 7, Windows 10
China Energy Efficiency Standard	Tier 2
TÜV Rheinland Eye Comfort	Yes



*Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2.

Lenovo ThinkVision LT1913p Monitor

SPECIFICATIONS

DISPLAY		MECHANICAL	
Panel Size	19"	Tilt Angle (Front / Back)	-5° - 30°
Panel Type	In Plane Switching	Swivel Angle (Left / Right)	45° / 45°
Aspect Ratio	5:4	Lift (mm)	110
Resolution	1280 x 1024	Pivot	0° - 90° (Clockwise)
Viewable Area (mm)	479.958	VESA® Mount	Yes
Screen Dimensions (W x H) (mm)	374.7 x 299.8	Kensington® Lock Slot	Yes
Pixel Pitch (W x H) (mm)	0.0976 x 0.2928	USB Hub	No
Dot/Pixel Per Inch (DP / PPI)	86.78	Multimedia	Optional USB Sound Bar
Brightness (Typical)	250 nits	Bezel Color	Black
Contrast Ratio (Typical)	1000:1	Bezel Width	
Viewing Angle (H/V at CR 10:1)	178°/178°	Sides (mm / inches)	17.4 / 0.68"
Response Time (Typical)	7 ms	Top (mm / inches)	17.4 / 0.68"
Color Gamut	72%	Bottom (mm / inches)	17.4 / 0.68"
Number of Colors	16.7 Million		
SIGNAL INPUT		POWER CONSUMPTION	
Video Input Signals	VGA, DVI	Power Consumption	
Cables Supplied	VGA, DVI	Typical	24 W
Sync on Green	No	Maximum	27 W
Plug 'n' Play	DDC/CI	Sleep-Mode	<0.5 W
Preset Display Modes	20	Off-Mode	<0.5 W
User-defined Display Modes	20	Heat Dissipation	
OSD Buttons	Yes	Typical	81.84 Btu/h
OSD Languages	8	Maximum	92.07 Btu/h
Lockable Controls	Yes	Power Supply	Internal
DIMENSIONS (W x D x H)		COMPLIANCE	
Size Unpacked		TCO	Display 7.0
(mm)	411 x 264.2 x 371.5	TCO Edge	1.1
(inches)	16.18" x 10.4" x 14.63"	EPEAT	Silver
Weight Unpacked	Starting at 10.69 lbs (4.85 kg)	ENERGY STAR Rating	8.0
		TÜV Green Mark	Yes
		Windows Certification	Windows 10 / Windows 8.1 / Windows 8 / Windows 7
			Tier 1 (New Standard Tier 2)
WARRANTY		China Energy Label	85%
Warranty	3 Years	PCC	



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Lenovo

TECH SPECS

LCD PANEL

Panel Size
14-inch

Screen Dimensions (W x H, mm)
309.31 x 173.99 mm

Panel Type
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch (H x V, mm)
0.1611 x 0.1611 mm

Dot/Pixel Per Inch (DPI/PPI)
157

Viewing angle (H x V @ CR 10:1)
178° / 178°

Response Time (typical)
6ms with OD

Refresh Rate
60 Hz

Brightness (typical)
300 cd/m²

Contrast Ratio (typical)
700:1

Dynamic Contrast Ratio (typical)
3M:1

Colour Gamut NTSC (CIE 1931)
72%

Color Support (typical)
16.7 Million

Color Depth
8bit (6bit + FRC)

Anti-Glare
Yes

CONNECTIVITY

Video Input Signals
2 x USB 3.1 Type-C (DP1.2 Alt Mode)

POWER

Power Consumption (Typ./Max)
6 W / 7.5 W (Without USB Type-C output)

ENERGY STAR Power Consumption (P_{on})
4.88 W

ENERGY STAR Power Consumption (E_{TEC})
15.53 kWh

Power Consumption Sleep/Off Mode
< 0.3 W

Power Consumption Switch-Off Mode
< 0.3 W

USB Type-C/Power Delivery
Up to 65 W

Power Supply
External (no adapter bundle)

Voltage Required
DC 5 V to 20 V

MECHANICAL

Tilt Angle (front/back)
-5° / 90°

Mounting Support
Yes (100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
5.48mm

Bezel Width (top / bottom)
5.47 mm / 23.87 mm

DIMENSIONS

Size Packed (D x H x W) (mm / inch)
276 x 61 x 402 mm /
10.87 x 2.40 x 15.83 inches

Size Unpacked w/stand (D x H x W) (mm / inch) (Lowest position)
96.54 x 209.03 x 323.37 mm /
3.8 x 8.23 x 12.73 inches

Size Unpacked w/stand (D x H x W) (mm / inch) (Highest position)
96.54 x 220.03 x 323.37 mm /
3.8 x 8.66 x 12.73 inches

Stand base footprint area (mm²)
260.87 x 69.55 mm /
10.27 x 2.74 inches

Weight Packed (kg / lbs.)
1.67 kg / 3.67 lbs.

Weight Unpacked (kg / lbs.)
0.598 kg / 1.31 lbs.*

WHATS IN THE BOX

1 x Monitor with stand
1 x ThinkVision M14 sleeve
1 x USB Type-C cable (1 m)
1 x QSG
1 x Pair of clips

ENVIRONMENTAL

Temperature - Operating
0° to 40°C

Temperature - Non-operating
-20° to 60°C

Humidity - Operating
30 to 80%

Humidity - Non-operating
30 to 90%

Altitude - Operating
0 to 5000 m

Altitude - Non-operating
0 to 40,000 ft

Arsenic-free Glass
Yes

PVC free
Yes

Mercury free
Yes

PCC % of plastic resins
85%

WARRANTY

Geography Availability
WW

Warranty
3 Years

CERTIFICATIONS

ENERGY STAR Rating
8.0

CCC
Yes

EPEAT
Silver

RoHS (EU 2002/95/EC)
Yes (Arsenic free / Pb free / Mercury free)

Windows Certification
Windows 7 / 10

Image Quality Capability
ISO 9241-307

China Energy Efficiency Standard
Tier 2

Low Blue Light / Eye Comfort
Yes (Low Bluelight)



ThinkVision M14d Mobile Monitor

Display

Panel Size
14-inch

Screen Dimensions
306.6 mm x 204.5 mm

Panel Type
In-Plane Switching

Active Area
301.5 mm x 188.5 mm

Backlight
WLED

Aspect Ratio
16:10

Resolution
2240 x 1400

Pixel Pitch
0.135 mm x 0.135 mm

Dot/Pixel Per Inch (DPI/PPI)
104

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
6ms (Extreme Mode), 8ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (Typical)
300 cd/m²

Brightness (Peak)
375 cd/m²

Contrast Ratio (Typical)
1500:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut (Coverage Ratio)
100% sRGB

Color Gamut (Color Area Ratio)
105% sRGB

Color Support (Typical)
16.7 Million

Color Depth
8-bit

Anti-Glare
Yes

Connectivity

Video Signal
2 x USB Type-C¹ Gen 1 (DP 1.2 Alt Mode)

Audio Signal
1 x Audio Out (by USB Type-C¹)

USB Hub
Yes

USB Upstream
1 x USB 2.0 (by USB Type-C¹)

USB Downstream
1 x USB 2.0 (by USB Type-C¹)

Special Features

Software
Yes (Lenovo Display Control Center)²

Natural Low Blue Light
Yes

Power

Power Consumption (Typ. / Max.)
6W / 7.5W

Power Consumption Sleep/Off Mode
≤0.5W

Power Consumption Switch-Off Mode
≤0.3W

ENERGY STAR Power Consumption (Pon/E_{TEC})
6.85W / 22.71kWh

Power Supply
External

USB Type-C¹ (DP Alt Mode) Power Delivery³
Up to 65W

USB Type-C¹ (Downstream) Power Delivery³
Up to 65W

Voltage Required
5V or 9V or 15V DC 3A
or 20V DC 5A Max.

Mechanical

Tilt Angle (Front / Back)
-5° / 95°

Lift (Max. Range)
11 mm

VESA Mount Capability
Yes (2 x Screws Holes, 100 mm)

Kensington Lock Slot
Yes

Bezel Color
Raven Black

Bezel Width (Side)
4.9 mm

Bezel Width (Top / Bottom)
4.9 / 18.9 mm

Dimension

Size Packed (D x H x W) (mm/inch)
277.0 x 76.0 x 384.0 mm
10.91 x 2.99 x 15.12 inches

Size Unpacked w/ Stand (Lowest Position) (D x H x W) (mm/inch)
106.4 x 216.5 x 314.4 mm
4.19 x 8.52 x 12.38 inches

Size Unpacked w/ Stand (Highest Position) (D x H x W) (mm/inch)
106.4 x 227.5 x 314.4 mm
4.19 x 8.96 x 12.38 inches

Size Unpacked w/o Stand (Head Only) (D x H x W) (mm/inch)
4.6 x 215.3 x 314.4 mm
0.18 x 8.48 x 12.38 inches

Weight Packed (kg / lbs.)
1.8 kg / 4.0 lbs.

Weight Unpacked (kg / lbs.)
0.6 kg / 1.3 lbs.

Weight (Monitor Head Only) (kg / lbs.)
0.4 kg / 0.8 lbs.

What's in the Box

Monitor with Stand
Monitor with Integrated Stand

USB-C Cable (Cable Length)
1 x USB-C Cable (1.0 m)

Quick Setup Guide
Yes

Certification

ENERGY STAR Certification
Yes

CCC
Yes

EPEAT
Silver

Volatile Organic Compound Certification
Yes

RoHS (2011/65/EU)
Yes

Windows Certification
Windows 10, Windows 11

China Energy Efficiency Standard
Tier 1

TÜV Rheinland Low Blue Light
Yes

TÜV Rheinland Flicker Free
Yes

TÜV Low Blue Light (Hardware Solution)
Yes

Eyesafe Display Certification
Yes



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³ Listed as maximum capacity of power delivery. Actual capacity of power delivery may vary depending upon devices connected or monitor configuration, and may decline with downstream USB ports connected or higher brightness setting.

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Specifications may vary depending upon region.

Smarter
technology
for all

Lenovo

Specifications

DISPLAY

Panel Size
14-inch

Screen Dimensions
309.31 mm x 173.09 mm

Panel Type
In-Plane Switching

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.1611 x 0.1611 mm

Dot/Pixel Per Inch (DPI/PPI)
157

Viewing Angle (H x V @ CR 10:1)
178 °/ 178°

Response Time
6ms (extreme mode)
8ms (normal mode)

Refresh Rate
60 Hz

Brightness (typical)
300 cd/m²

Contrast Ratio (typical)
700:1

Dynamic Contrast Ratio (typical)
3M:1

Color Gamut
72% NTSC (CIE 1931)

Color Support (typical)
16.7 Million

Color Depth
8-bit (6-bit + FRC)

Touch
Yes (10-point touch)

CONNECTIVITY

Video Signal
2 x USB 3.2 Type-C (DP1.2 Alt Mode)

USB Upstream
2 x USB 3.2 Type-C

USB Downstream
2 x USB 3.2 Type-C

SPECIAL FEATURES

Pen/Digitizer
Yes

POWER

Power Consumption (typ./max)
8W / 9.5W

Power Consumption Sleep/Off Mode
< 0.3W

Power Consumption Switch-off Mode
< 0.3W

ENERGY STAR Power Consumption
(P_{on}/E_{TEC})
7.22W / 25.5kWH

Power Supply
External**

USB Type-C Power Delivery (W)
Up to 65 W

Voltage Required
DC 5 / 9 / 15 / 20 V

MECHANICAL

Tilt Angle (front/back)
-5° / 90°

Lift (max range)
11 mm

Pivot
-90° / 90°

Mounting Support
Yes (2 screws holes, 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (side)
5.43 mm

Bezel Width (top/bottom)
5.42 / 30.38 mm

DIMENSIONS

Size Packed (D x H x W, mm/inch)
377.0 x 68.0 x 267.0 mm
148.43 x 26.77 x 105.12 inches

Size Unpacked w/ Stand (D x H x W, mm/
inch) (lowest position)
14.0 x 214.3 x 323.4 mm
0.55 x 8.44 x 12.73 inches

Size Unpacked w/ Stand (D x H x W, mm/
inch) (highest position)
14.0 x 226.5 x 323.4 mm
0.55 x 8.92 x 12.73 inches

Weight Packed (kg/lbs.)
1.87 kg / 4.12 lbs.

Weight Unpacked* (kg/lbs.)
0.698 kg* / 1.54 lbs.

WHAT’S IN THE BOX

- 1 x M14t Monitor
- 1 x USB Type-C to Type-C cable (1.0m)
- 1 x Active Pen with battery***
- 1 x Sleeve
- 1 x L-shaped dongle
- 1 x Pair of clips
- Quick setup guide

CERTIFICATION

ENERGY STAR Rating
8.0

CCC
Yes

EPEAT
Silver

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 2

TÜV Rheinland Low Blue Light
Yes



**not bundled
***For selected regions and countries only.

ThinkVision M15 Monitor

DISPLAY

Panel Size
15.6-inch

Screen Dimensions
360.0 mm x 234.0 mm

Panel Type
In-Plane Switching

Active Area
344.2 mm x 193.6 mm

Backlight
WLED

Aspect Ratio
16:9

Resolution
1920 x 1080

Pixel Pitch
0.179 mm x 0.179 mm

Dot/Pixel Per Inch (DPI/PPI)
141

Viewing Angle (H x V @ CR 10:1)
178° / 178°

Response Time
6ms (Extreme Mode)
14ms (Normal Mode)

Refresh Rate
60 Hz

Brightness (Typical)
250 cd/m²

Contrast Ratio (Typical)
1000:1

Dynamic Contrast Ratio (Typical)
3M:1

Color Gamut (Coverage Ratio)
45% NTSC (CIE 1931)

Color Support (Typical)
16.7 Million

Anti-Glare
Yes

CONNECTIVITY

Video Signal
2 x USB Type-C¹ 3.2 Gen 1² (DP 1.2 Alt Mode)

USB Hub
Yes

USB Upstream
1 x USB 2.0 (1 by USB Type-C¹)

USB Downstream
1 x USB 2.0 (1 by USB Type-C¹)

SPECIAL FEATURES

Software
Lenovo ThinkColour
(Lenovo Display Control Center)³

Others
Height Adjustment

POWER

Power Consumption (Typ. / Max.)
8W / 9.5W

Power Consumption Sleep/Off Mode
< 0.3W

Power Consumption Switch-Off Mode
< 0.3W

ENERGY STAR Power Consumption (P_{on} / E_{TEC})
5W / 19kWh

Power Supply
External

USB Type-C Power Delivery (W)
Up to 65W⁴

Voltage Required
DC 5/9/15/20 V

MECHANICAL

Tilt Angle (Front / Back)
0° / 90°

Lift Range
10 mm

VESA Mount Capability
Yes (2 x Screws Holes, 100 mm)

Kensington Lock Slot
Yes

Cable Management
Yes

Bezel Color
Raven Black

Bezel Width (Side)
7.3 mm

Bezel Width (Top / Bottom)
7.3 / 31.9 mm

DIMENSION

Size Packed (D x H x W) (mm/inch)
407.9 x 75.9 x 279.9 mm
16.06 x 2.99 x 11.02 inches

Size Unpacked w/ Stand (Lowest Position) (D x H x W) (mm/inch)
235.5 x 360.0 x 108.4 mm
9.27 x 14.17 x 4.27 inches

Size Unpacked w/ Stand (Highest Position) (D x H x W) (mm/inch)
245.5 x 360.0 x 108.4 mm
9.67 x 14.17 x 4.27 inches

Weight Packed (kg / lb)
1.7 kg / 3.7 lbs.⁵

Weight Unpacked (kg / lb)
0.9 kg / 1.9 lbs.⁵

WHAT'S IN THE BOX

Monitor
1 x M15 Monitor

USB Cable (Cable Length)
1 x USB Type-C to Type-C Cable (1m)

Quick Setup Guide
Yes

Others
1 x Pair of Clips
1 x Sleeve

CERTIFICATION

ENERGY STAR Certification
Yes

CCC
Yes

EPEAT
Silver

RoHS (EU 2002/95/EC)
Yes

Windows Certification
Windows 7, Windows 10

China Energy Efficiency Standard
Tier 2

TÜV Rheinland Low Blue Light
Yes

TÜV Rheinland Flicker Free
Yes



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Battery life: Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

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